## JOINT VENTURE BOARD OF DIRECTORS

**OFFICERS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Company/Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris DiGiorgio</td>
<td>Co-Chair</td>
<td>Accenture, Inc.</td>
</tr>
<tr>
<td>Hon. Chuck Reed</td>
<td>Co-Chair</td>
<td>City of San José</td>
</tr>
<tr>
<td>Russell Hancock</td>
<td>President &amp; CEO</td>
<td>Joint Venture Silicon Valley</td>
</tr>
</tbody>
</table>

**DIRECTORS**

<table>
<thead>
<tr>
<th>Name</th>
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<th>Company/Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Alder</td>
<td></td>
<td>Google</td>
</tr>
<tr>
<td>Hon. Elaine Alquist</td>
<td></td>
<td>California State Senate</td>
</tr>
<tr>
<td>Mark Bauhaus</td>
<td></td>
<td>Juniper Networks</td>
</tr>
<tr>
<td>George Glumetental</td>
<td></td>
<td>University of California at Santa Cruz</td>
</tr>
<tr>
<td>Steven Bochner</td>
<td></td>
<td>Wilson Sonsini Goodrich &amp; Rasati</td>
</tr>
<tr>
<td>Ed Cannizzaro</td>
<td></td>
<td>KPMG LLP</td>
</tr>
<tr>
<td>Emmett D. Carson</td>
<td>Silicon Valley Community Foundation</td>
<td></td>
</tr>
<tr>
<td>John Ciachella</td>
<td></td>
<td>Deloitte &amp; Touche LLP</td>
</tr>
<tr>
<td>Mary Dent</td>
<td></td>
<td>SVB Financial Group</td>
</tr>
<tr>
<td>Fred Diaz</td>
<td></td>
<td>City of Fremont</td>
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<tr>
<td>Ben Foster</td>
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<td>Optery</td>
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<tr>
<td>Judith Maxwell Greig</td>
<td></td>
<td>Notre Dame De Namur University</td>
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<tr>
<td>Paul Gustafson</td>
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<td>TDA Group</td>
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<tr>
<td>Steve Hemminger</td>
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<td>Alston &amp; Bird LLP</td>
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<tr>
<td>Joe Hogan</td>
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<td>Ernst &amp; Young</td>
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<tr>
<td>Eric Houser</td>
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<td>Wells Fargo</td>
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<tr>
<td>Jim Keene</td>
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<tr>
<td>W. Keith Kennedy Jr.</td>
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<td>Canway</td>
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<tr>
<td>Stacy McAfee</td>
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<tr>
<td>Tom McCalmont</td>
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<tr>
<td>Jim McCaughy</td>
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<td>Lucile Packard Children’s Hospital</td>
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<td>Jean McCown</td>
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<tr>
<td>Curtis Mo</td>
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<td>Winner Cater Pickering Hore and Darr LLP</td>
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<tr>
<td>Mairini Ni Dhoomnial</td>
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<tr>
<td>Joseph Parisi</td>
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<tr>
<td>Mo Qayoumi</td>
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<tr>
<td>Bobby Ram</td>
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<td>Paul Roche</td>
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<tr>
<td>Bill Sherry</td>
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<td>Norman Y. Mineta San Jose International Airport/Team San Jose</td>
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<td>Harry Sim</td>
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<tr>
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<tr>
<td>Neil Strethers</td>
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<td>Santa Clara County Building &amp; Construction Trades Council</td>
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<td>Linda Thor</td>
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<td>Foothil De-Anza Community College District</td>
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<tr>
<td>Mark Walker</td>
<td></td>
<td>Applied Materials</td>
</tr>
<tr>
<td>Patricia Williams</td>
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<td>Menil Lynds</td>
</tr>
<tr>
<td>Daniel Yost</td>
<td></td>
<td>Orick, Herrington &amp; Sutcliffe, LLP</td>
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**SENIOR ADVISORY COUNCIL**

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<thead>
<tr>
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<tbody>
<tr>
<td>John C. Adams</td>
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<td>Wells Fargo</td>
</tr>
<tr>
<td>Frank Benest</td>
<td></td>
<td>City of Palo Alto (Rec.)</td>
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<tr>
<td>Eric Benhamou</td>
<td></td>
<td>Benhamou Global Ventures</td>
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<tr>
<td>Harry Kellogg Jr.</td>
<td></td>
<td>SVB Financial Group</td>
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<tr>
<td>William F. Miller</td>
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<td>Stanford University</td>
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## SILICON VALLEY COMMUNITY FOUNDATION BOARD OF DIRECTORS

**CHAIR**

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Thomas J. Friel</td>
<td>Vice Chair</td>
<td>Retired Chairman, Hedrick &amp; Struggles International, Inc.</td>
</tr>
<tr>
<td>C.S. Park</td>
<td></td>
<td>Former Chairman and CEO, Masitar Corp.</td>
</tr>
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<tr>
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<tbody>
<tr>
<td>Jayne Battey</td>
<td></td>
<td>Director of Land &amp; Environmental Management, Pacific Gas &amp; Electric</td>
</tr>
<tr>
<td>Gloria Rhodes Brown</td>
<td></td>
<td>Outreach Director, Mito-Peninsula Health Services</td>
</tr>
<tr>
<td>Emmett D. Carson</td>
<td></td>
<td>Chief Executive Officer, Silicon Valley Community Foundation</td>
</tr>
<tr>
<td>Gregory M. Gallo</td>
<td></td>
<td>Partner, BWA Piper US LLP</td>
</tr>
<tr>
<td>Nancy H. Handel</td>
<td></td>
<td>Retired Senior Vice President, Chief Financial Officer, Applied Materials, Inc.</td>
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<tr>
<td>John F. Hopkins</td>
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<td>Of Counsel, Hopkins &amp; Carley</td>
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<tr>
<td>Samuel Johnson, Jr.</td>
<td></td>
<td>Director of Administrative Services, Notre Dame De Namur University</td>
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<tr>
<td>Robert A. Keller</td>
<td></td>
<td>Managing Director, JP Morgan</td>
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<tr>
<td>Dan Lewin</td>
<td></td>
<td>Corporate Vice President, Strategic and Emerging Business Development, Microsoft</td>
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<tr>
<td>David F. Lopez, Ed. D.</td>
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<td>President, The National Hispanic University</td>
</tr>
<tr>
<td>Anne F. Macdonald</td>
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<td>Partner, Frank, Rimerman &amp; Co., LLP</td>
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<tr>
<td>Catherine A. Molnar</td>
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<td>Executive Director, CHS Management LLC</td>
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<tr>
<td>Ivonne Monte de Oca</td>
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<td>The Pinnacle Company</td>
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<tr>
<td>Eduardo Rallo</td>
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<td>Managing Partner, Pacific Community Ventures LLC</td>
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<tr>
<td>Sanjay Vassani</td>
<td></td>
<td>Managing Partner, Center for Corporate Innovations, Inc.</td>
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<tr>
<td>Thurman V. White, Jr.</td>
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<td>President and CEO, Progress Investment Management Company, LLC</td>
</tr>
<tr>
<td>Gordon Yamate</td>
<td></td>
<td>Former Vice President and General Counsel, Knight Rider</td>
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**INDEX ADVISORS**

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Bob Brownstein</td>
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<td>Working Partnerships USA</td>
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<td>Jo Anna Caywood</td>
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<td>Lucile Packard Foundation</td>
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<tr>
<td>Jo Coffaro</td>
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<td>Hospital Council of Northern &amp; Central California</td>
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<tr>
<td>Leslie Crowell</td>
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<tr>
<td>Stephen Levy</td>
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<td>Center for Continuing Study of the California Economy</td>
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<tr>
<td>Rocio Luna</td>
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<td>Santa Clara County Public Health Dept</td>
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<tr>
<td>Connie Martinez</td>
<td></td>
<td>1st ACT Silicon Valley</td>
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<tr>
<td>Rich Napier</td>
<td></td>
<td>City-County Association of Government, San Mateo County</td>
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<tr>
<td>Sanjay Narayan</td>
<td></td>
<td>Sierra Club</td>
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<tr>
<td>Dan Pettycore</td>
<td></td>
<td>Santa Clara County Public Health Dept</td>
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<tr>
<td>Jeff Ruster</td>
<td></td>
<td>work/2future, City of San Jose</td>
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<tr>
<td>Anna Lee Saxenian</td>
<td></td>
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<tr>
<td>Susan Smarr</td>
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<td>Kaiser Permanente Santa Clara Medical Center</td>
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<td>Kris Stadelman</td>
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<td>NOVA</td>
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<td>Anandi Sujee</td>
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<tr>
<td>Michael Teitz</td>
<td></td>
<td>University of California, Berkeley</td>
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<tr>
<td>Leah Toenskoetter</td>
<td></td>
<td>San Francisco Planning &amp; Urban Research Association</td>
</tr>
<tr>
<td>Will Travis</td>
<td></td>
<td>Bay Area Joint Policy Committee</td>
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<tr>
<td>Lyne Trillo</td>
<td></td>
<td>San Jose State University</td>
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<tr>
<td>Kim Walesh</td>
<td></td>
<td>City of San Jose</td>
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<tr>
<td>E. Chris Wilder</td>
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<td>Valley Medical Center Foundation</td>
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<tr>
<td>Linda Williams</td>
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<td>Planned Parenthood Mar Monte</td>
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<tr>
<td>Erica Wood</td>
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<tr>
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**COLLABORATIVE ECONOMICS**

<table>
<thead>
<tr>
<th>Name</th>
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<th>Company/Title</th>
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<tr>
<td>Doug Henton</td>
<td></td>
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<tr>
<td>John Melville</td>
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<td>Kim Held</td>
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<tr>
<td>Clare Brown</td>
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<td>Jesse Oettinger</td>
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<tr>
<td>Francis Genz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renee Steichen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Janine Kaiser</td>
<td></td>
<td></td>
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<tr>
<td>Truitt Gossett</td>
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</tbody>
</table>

**Prepared By:**
Dear Friends:

Silicon Valley has rebounded from the recession, but persistent challenges remain. How we use this recovery to address these challenges will determine our future competitiveness and quality of life.

The region is adding jobs faster than it has in more than a decade, and at a faster rate than the rest of California and the nation. Over the past year the Valley swelled by 42,360 jobs and the quarterly growth rate reached four percent, the highest we’ve seen in over a decade. Those numbers swell dramatically if we add San Francisco into the head count.

San Francisco’s impressive performance raises interesting and important questions about the Bay Area’s growing connectedness and interdependencies. It’s clear that technology, innovation, and entrepreneurship are no longer clustering in the South Bay alone, and the spread of these activities forces our region to address questions of integration that have long been ignored. This year’s Special Analysis looks at those issues in depth and suggests it is time Silicon Valley and the greater Bay Area take a fresh look at regional planning and decision making.

This year’s Index also makes it clear that our current economic growth, however widespread, is not a cure-all. The rebound has not reached all our residents, and it is not addressing the most serious challenges there were here before the recession and which remain with us today. A large and growing education deficit keeps too many residents from sharing in the new prosperity. The high school drop-out rate is rising. Incomes continue to slip for our Hispanic and African American populations, while rising for other groups. Housing starts have not recovered to pre-recession levels, and the percentage of income spent on rent has reached a decade high (46 percent).

The Index shows Silicon Valley maintaining its status as the world’s major innovation hub, with solid gains in patent registrations and IPOs. And yet it is also clear we cannot take those advantages for granted. Our report also shows a decline in venture capital investment, and though there has been growth in angel financing and conventional loans, we may be on the cusp of a disruptive shift in the Valley’s financing model.

As our economy continues to grow, and as that growth takes on a wider footprint, the 2013 Index challenges us to think more expansively about all the associated challenges, to become more regionally integrated, and to ensure that our growth is more widely shared.

Sincerely,

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

Emmett D. Carson, Ph.D.
CEO & President
Silicon Valley Community Foundation
The geographical boundaries of Silicon Valley vary. Earlier, the region’s core was identified as Santa Clara County plus adjacent parts of San Mateo, Alameda and Santa Cruz counties. However, since 2009, the Silicon Valley Index has included all of San Mateo County in order to reflect the geographic expansion of the region’s driving industries and employment. Silicon Valley is thus 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

---

**THE SILICON VALLEY REGION**

**Area:** 1,854 square miles  
**Population:** 2.9 million  
**Jobs:** 1,384,663  
**Average Annual Earnings:** $88,981  
**Net Foreign Immigration:** +10,955  
**Net Domestic Migration:** +241  

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

**Age distribution:**
- 23% 17 and under  
- 8% 18-24  
- 30% 25-44  
- 26% 45-64  
- 12% 65 and older

**Ethnic composition:**
- 37% White, non-Hispanic  
- 30% Asian, non-Hispanic  
- 27% Hispanic  
- 2.5% Black, non-Hispanic  
- 4% Multiple and Other

**Foreign Born:** 36%
- Origin:
  - 59.5% Asia (Total)  
  - 14% China  
  - 12% Philippines  
  - 11% Vietnam  
  - 11% India  
  - 29.5% Americas (Total)  
  - 21% Mexico  
  - 9% Europe  
  - 1% Africa  
  - 1% Oceana

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# 2013 Index Highlights

## Index at a Glance

### Special Analysis – Strengthening the Bay Area’s regional governance

## People

Silicon Valley continues to attract foreign and domestic talent, while educational attainment differs by racial and ethnic group.

### Talent Flows and Diversity

## Economy

Regional employment has posted solid gains and innovative measures vary.

### Employment

### Innovation

### Entrepreneurship

### Commercial Space

### Income

## Society

Student preparedness is in question and some health outcomes are a concern.

### Preparing for Economic Success

### Early Education

### Arts and Culture

### Quality of Health

### Safety

## Place

Progress on environmental sustainability is mixed as electricity consumption falls and vehicle miles traveled grows. Homeowners are feeling relief as residential foreclosures drop substantially.

### Environment

### Transportation

### Land Use

### Housing

## Governance

City revenue increased slightly in 2011 for the first time since the recession.

### Revenue

## Special Analysis continued

### Appendices

### Acknowledgments

## Table of Contents
Silicon Valley is experiencing a new wave of prosperity led by solid job growth. However, this prosperity is not shared by all residents and has not resolved the challenges that faced the region prior to the recession.

Some indicators have shown positive regional growth:

Silicon Valley has been adding jobs.

- Silicon Valley’s quarterly employment increased four percent from Q2 2011 to Q2 2012, the highest annual growth in more than a decade.
- Monthly employment in Santa Clara and San Mateo Counties grew from December 2011 to December 2012, adding 42,360 jobs. San Francisco created 15,900 jobs over the same period.
- The public sector continues to be squeezed, losing over 1,130 local government jobs from 2007 to Q2 2012.
- All major areas of economic activity, except for manufacturing and life sciences, increased employment from Q2 2011 to Q2 2012.
- The regional unemployment rate is 7 percent and rates have declined across all ethnicities since 2010, although ranging from six to ten percent.

Silicon Valley expands its talent pool, both domestically and from abroad.

- In 2011, nearly two thirds of Silicon Valley professionals with higher education working in science and engineering fields were born outside of the United States, a number more than twice the national average for similar professions and education levels (64 percent in Silicon Valley and 26 percent nationally).
- The educational level of residents in Silicon Valley was higher than in California overall across all ethnic groups in 2011. These rates increased across all ethnic groups except African Americans and Hispanics.
- The number of full time arts and culture employees jumped eight percent in 2010 to 4,200.

Residents are changing their habits and improving environmental conditions, while transit continues to keep our region interconnected.

- Silicon Valley has decreased its daily per capita waste disposal 36 percent since 1995, reporting a six percent drop over the past year.
- Electricity productivity improved 5.2 percent as per capita electricity consumption fell 2.5 percent.
- Transit ridership increased 1.3 percent in 2012 to 27.5 rides per capita.
- The San Francisco peninsula is increasingly integrated. Over a third of peninsula commuters live in Silicon Valley and work in San Francisco, while a quarter make the opposite commute.

Other indicators show a mixed message as pre-recession challenges remain:

Income growth is uneven.

- Reporting the third consecutive year of growth, real per capita income inched up 2.2 percent, and nears pre-recession levels.
- In contrast, median household income hit an 11-year low of $84,724 in 2011, while remaining 45 percent above the state.
- Income differs sharply by educational level, with median income for residents with graduate degrees five times higher than residents without a high school degree. Since 2009, median income has fallen for all educational levels except for those with graduate or professional degrees.
The majority of ethnicities and races saw improved per capita income in 2011, except for African Americans and Hispanics whose per capita income fell 18 percent and five percent, respectively.

Since 2005, the proportion of middle income households has declined by three percent.

Food stamp participation in the region exceeded a decade high of five percent, though it was less than half of the California average.

The housing recovery is uneven. Renters continue to feel the pressure as rents increase, while homeowners are faring better.

The number of housing starts remains low, despite the strong job recovery.

The percentage of affordable housing units fell to a 15-year low of two percent of new approved residential units.

Average rents hit a historical high of $1,966 and a growing percentage of renters spend more than 35 percent of their income on rent.

Residential foreclosures declined 41 percent from the first half of 2011 to the first half 2012.

Average home prices stabilized in 2012 at $671,926, as the number of home sales through Q2 2012 ticked up 12 percent from a year prior.

The percentage of Silicon Valley homeowners with mortgages higher than the worth of their home was 19 percent in Q2 2012, though there was extensive variation between cities in the region, ranging from two to 37 percent.

Financing and innovation assets are mixed.

Total patent registrations ticked up, though they represent a smaller portion of total statewide patents.

Silicon Valley venture capital investment fell 17 percent in 2012 and is more greatly concentrated in Software, which comprises 38 percent of total investment.

In 2011, the amount of federal Small Business Innovation and Technology (SBIR/STTR) funding received by Silicon Valley small businesses increased 30 percent to nearly $91 million, though the number of awards fell.

The number of small business loans grew faster than the total loan amount, suggesting banks issued more small loans in 2011; the number of loans issued increased 16 percent, and total loan values rose five percent.

Silicon Valley reached a five-year high of 17 initial public offerings (IPOs) in 2012, representing 52 percent of statewide IPOs and 15 percent nationally.

Entrepreneurship has been constrained in recent years by lack of access to financing; however, a 90 percent growth in angel investments in 2012 suggests an improved investment environment.

Mergers and acquisitions (M&As) dropped in 2012, but continued to comprise a growing portion of total statewide M&As.

Greater disengagement of youth is present in our region as well as statewide.

During the 2010-11 school year, high school dropout rates increased three percent to 14 percent, while graduation rates fell a percentage point to 87 percent. However, youth in Silicon Valley were more likely to be working or in school than their peers statewide; the region’s proportion of disconnected youth was four percent lower than in California overall.

Juvenile felony drug offenses edged up to 152 offenses per 100,000 juveniles, and the number of substance abuse rehabilitation clients shot up 13 percent in 2010.

For the first time in four years, the percentage of eighth graders scoring advanced on the Algebra I test fell.

While some traditional health concerns are less prevalent, new issues are surfacing.

Infant mortality rates subsided to a nearly two-decade low of 2.9 deaths per 1,000 live births.

Of employed Silicon Valley residents between the ages of 18 and 64, 87 percent were covered by health insurance in 2011, compared to 78 percent statewide.

Student obesity levels in Silicon Valley remained consistent at around 33 percent of the student population, while adult obesity rates have fluctuated. The proportion of the population that is overweight fell to 29.7 percent, while the obesity rate reached a decade high of 18.8 percent.

Over a third of Silicon Valley residents between the ages of 53 and 64 provided care to a family member or friend in 2009.
THE 2013 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 Index is a comprehensive report based on indicators that 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, moving 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
• Measure outcomes, rather than inputs

Appendix A provides detail on data sources for each indicator
**SOCIETY**

Student preparedness is in question and some health outcomes remain a concern.

**PLACE**

Progress on environmental sustainability is mixed as electricity consumption falls but vehicle miles traveled grows. Homeowners are feeling relief as residential foreclosures drop substantially.

**GOVERNANCE**

City revenue increased slightly in 2011 for the first time since the recession.

---

**Adult Obesity Rates**

![Chart showing obesity rates](chart)

**Electricity Productivity and Consumption per Capita**

![Graph showing electricity productivity and consumption](graph)

**Vehicle Miles of Travel per Capita and Gas Prices**

![Graph showing vehicle miles and gas prices](graph)

**Number of Residential Foreclosures**

<table>
<thead>
<tr>
<th>Year</th>
<th>Silicon Valley</th>
<th>California</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>8,831</td>
<td>238,396</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>5,879</td>
<td>154,519</td>
<td>-33%</td>
</tr>
</tbody>
</table>

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Much of what makes Silicon Valley and the overall nine-county Bay Area a great place to live and work is the result of regional decisions. Over half a century ago, leaders in the Bay Area looked to the future and made choices involving tradeoffs and sacrifices.
We protected large areas of open space ringing our communities and limited development along the coast. We saved the Bay from being turned into a narrow shipping channel with urban development spreading onto newly reclaimed land. We built BART to connect people in emerging suburbs to the urban core and saved Caltrain when it was threatened with extinction. Imagine the Bay Area today without dedicated open space ringing the Bay, a BART and Caltrain system that may soon carry half a million riders daily, or with a virtually nonexistent Bay, replaced by subdivisions and office parks.

For many of these regional victories we also established a new governance institution to address these issues in perpetuity. The Golden Gate National Recreation Area manages land in three counties. The Bay Conservation and Development Commission (BCDC) manages issues of growth along the Bay shoreline. BART is an agency with an elected board that is responsible for building and maintaining a rail system in four and soon five counties. The Peninsula Joint Powers Board owns and operates Caltrain across three counties.

As we look to the future, there are new and lingering challenges we must address. In fact, some of the biggest threats to the Bay Area’s long-term economic competitiveness are challenges best addressed through stronger or more effective regional governance.

- Overall job growth is constrained by limited housing production, as many individual jurisdictions do not view housing growth in their self-interest.
- Highway congestion results because jobs are scattered throughout the region, often far from transit.
- Tax receipts are highly unequal between neighboring jurisdictions even though residents in one town work in the next.
- For transit riders, navigating a regional system with 27 individual operators and dozens of different fares is difficult. Transformative infrastructure like high-speed rail is stymied by a myriad of local concerns. Thousands ride private shuttles daily to sites throughout Silicon Valley in part because there is no viable transit alternative.
- And the growing reality of climate change threatens much of Silicon Valley’s economic health through risks from flooding, rising tides and storm surges. Key pieces of regional infrastructure such as airports and ports are also threatened. New York and New Jersey’s experience with storm surges from Hurricane Sandy demonstrates both the significant economic consequences of such storms as well as the urgency of developing a regional response.

While many of the Bay Area’s 100-plus local cities and nine counties are trying to respond to these important issues, they are not capable of solving them alone. Quite simply, jobs, housing, transit and climate change are regional challenges. By definition, regional issues require regional solutions.

Failing to address these regional problems means risking the Bay Area’s economic standing globally. We face increasing competition. Places like Singapore, Shanghai, Vancouver, and São Paolo are not just cities but city-regions that are acting and working regionally. Within the United States, Portland and Minneapolis have long been held up as models for better regionalism. What can we learn from these places and other metropolitan areas? What are the risks of not working regionally?

This year’s Special Analysis asks and explores the following questions: “What major regional issues could threaten our economic success?” and “How is our current system of governance inadequate to respond to these threats?”

Why regions matter

Regions are the scale where we compete globally. The ingredients for successful economic development are found at the scale of a region – access to labor, education, innovation, finance, housing, specialized infrastructure and quality of life. When these inputs are strong, the region’s industry clusters thrive and grow.

Successful regions give residents more opportunities. We are living in an era of increasing divergence among regions. Those who live in economically prosperous regions earn significantly higher wages than those who live in struggling regions. Geography in fact matters more than education. A high school graduate in San Jose earns 60 percent more than a college graduate in Flint.1

Maintaining a successful region requires smart decisions at all levels. Maintaining a strong region requires coordination of major systems – like transportation and natural resources – that cut across jurisdictional boundaries. Planning and preserving key corridors for highways, rail lines, power lines, water pipes and goods movement requires effective regional planning. So too does planning to maintain and preserve natural systems like shorelines, waterways, habitats and air basins. Resources like food, energy and water are also generated and supplied regionally.

At a local level and without intention, cities often thwart regional competitiveness. For example, when cities decide to restrict or curtail the growth in housing, prices rise, workers are forced into long commutes and the region suffers with higher prices, more traffic and demands to build new infrastructure to connect workers to their more remote jobs. Over time, high housing costs act as an overall deterrent to job growth and can dim a region’s economic prospects.

The Bay Area’s fragmented system of governance

Throughout the Bay Area there are 101 incorporated cities and towns, numerous special-purpose agencies, 27 transit operators, nine counties and more than a dozen regional agencies for air, water, open space and other functions.

Each of the regional agencies with a multi-jurisdictional purview has a single or narrow purpose. The Bay Area has no unifying regional government entity whose role is to integrate and balance among sometimes competing values. Instead, our single purpose agencies specialize in specific areas—like improving air quality or limiting coastal development. While born from different moments, these regional agencies were designed to be limited in scope and emphasis and might not have succeeded were they to have begun with a broader focus from their outset.

The following are the key single purpose regional agencies in the Bay Area:

- The Metropolitan Transportation Commission (MTC) manages and funds regional transportation projects and oversees most of the region’s bridges. The 21-person board includes 16 voting members selected by elected officials within each county, two voting members representing BCDC and ABAG respectively and three non-voting members representing specific state and federal agencies. As of January 2013, the board includes representatives selected by the Mayors of Oakland and San Jose, marking MTC’s first change in governance in 42 years.
- The Association of Bay Area Governments (ABAG) produces a regional and local growth forecast for jobs, population and housing and performs long-range land-use planning. Its 38-member Executive board is appointed locally, with 35 members proportionally reflecting city and county populations.
- The Bay Area Air Quality Management District (BAAQMD) regulates air quality and emissions. Started by the legislature in 1955, it was the first regional pollution-control board in the country. Its 22-member board is roughly proportional by County population and selected within each county.
- The Bay Conservation and Development Commission (BCDC) issues permits for filling, dredging, and changes in use around and within the San Francisco Bay. Former by legislation passed in 1965, its current jurisdiction extends 100 feet inland of the shoreline. Its 27-member board includes a mix of appointees from the State, counties and ABAG.
- The San Francisco Bay Area Regional Water Quality Control Board is a state agency charged with protecting natural water systems and regulates discharges to the water system (like the Bay and ocean). The Governor appoints its board.
- The California Coastal Commission works with local cities and counties to help plan and regulates the use of land directly along the Pacific Coast (ranging from several hundred feet to the first public road). State officials appoint its 15-person board (12 voting) and its 12 voting members including six from the general public and six who are locally elected officials.

The Bay Area regional governance structure has long put locally elected officials in charge of nearly all major regional decisions, in part due to concerns that a regional agency will make decisions against the interests of local governments. MTC, ABAG, BCDC and the Air District consist primarily of locally elected officials—County Supervisors, City Councilmembers and Mayors. While many of the locally elected officials on regional bodies understand the need for regional action, they are often skeptical of giving more authority to the regional agency to respond more forcefully. As a result, our existing regional agencies have limited authority that is often contested.

Individually, all the regional agencies have some authority to say “No,” such as denying an additional permit (in the case of BCDC or the Air District) or limiting funding for a particular transportation project (in the case of MTC). But they have limited authority or impact to say, “Yes,” or to proactively solve major regional challenges.

When the existing regional agencies were established, many expected that they might be able to move beyond their limited focus to deal with multiple regional challenges. Over the years there have been many proposals and near mergers of some of the regional agencies.10

1 See: http://www.bbaqmd.gov/The-Air-District.aspx
2 See: http://www.mtc.ca.gov/about_mtc/about.htm
3 See: http://www.waterboards.ca.gov/about_us/board_members.shtml
4 See: http://www.mtc.ca.gov/about_mtc/about.htm
5 See: http://www.bcdc.ca.gov/permits/faqs.shtml
6 See: http://www.mtc.ca.gov/about_mtc/about.htm
7 See: http://www.coastal.ca.gov/roster.html
8 See: http://www.waterboards.ca.gov/about_us/board_members.shtml
9 See: http://www.mtc.ca.gov/about_mtc/about.htm
10 The closest perhaps was BayVision 2020 that proposed merging MTC, ABAG and the Air District as an initial step toward a fully comprehensive regional agency. Despite great civic and political leadership (including State Senator Rebecca Morgan who introduced the bill), it died in the final day of the legislative session in 1992, two Senate votes short of final passage.
11 This discussion is intended to give a flavor of the key regional agencies, the roles they play and why a more comprehensive regional governance structure is needed. For an excellent overview of the history and current functioning of the Bay Area’s regional entities, see: Bodovitz, Joseph E. Bay Area Regionalism: Can We Get There? September 2003. Available at: http://www.spur.org/publications/library/article/bayarearegionalism09012003
In the wake of failures in the 1990s for stronger regionalism, members of the boards of MTC, ABAG, BCDC and the Air District began meeting together bimonthly in 2004 at a “Joint Policy Committee” where board members and executive staff from these four regional agencies talk about overlapping issues. But this “Joint Policy Committee” has no authority to prohibit or mandate anything collectively.

Senate Bill 375, passed in 2008, holds promise for better regional planning. By requiring the region’s long-range transportation plan to have a land use component and to demonstrate how the region can grow in a way that reduces pollution from driving, it forces greater collaboration between ABAG, MTC and other regional agencies. But, while it implies the need to target transportation funds in ways that best reduce driving, it makes no changes to existing governance of single-purpose regional agencies and includes no requirement that local governments change local zoning to support regional goals.

Ultimately, the Bay Area today lacks an effective way to integrate land use planning, transportation, natural-resource protection, air quality and climate change adaptation. There is no entity that balances these goals, no plan that proposes solutions that cut across these issues and no new powers that trump the single-purpose goals of the existing institutions. The process to produce Plan Bay Area, the Bay Area’s combined Sustainable Communities Strategy and Regional Transportation Plan, is an important step towards conceptually integrating these various concerns and posing the key tradeoffs. Achieving a more concentrated development pattern that reduces greenhouse gas emissions may require the creation of a new comprehensive regional entity with new powers and a mandate to integrate land use, transportation, air quality and climate change.

But this long-proposed goal of a single comprehensive regional entity is only one potential solution to the region’s governance. Understanding today’s big regional challenges in more detail may yield other options that were not considered in prior efforts at regional reform.

What are key regional issues for Silicon Valley as part of the Bay Area region?

Many of the historical challenges of transportation and housing remain as key regional issues. But there are newer and different issues emerging today that were less prominent in prior efforts at regional reform. This analysis highlights five key regional issues that threaten long-term competitiveness and regional performance:

- Job sprawl;
- Limited housing production;
- Competition for tax revenues and resulting fiscal inequities and among jurisdictions;
- Fragmented regional transit service with limited coordination;
- Lack of preparation to respond to inevitable consequences of climate adaptation.

There are numerous other issues of regional concern, each reflective of an inadequate governance system. These include preparing for a major earthquake and drafting a long-term recovery plan post-event, identifying sufficient supply of drinking water for the region’s future needs, or ensuring that the region’s three major airports remain fiscally strong and can effectively manage demand among them to reduce crowding and delays.

The five issues we selected are challenges with solutions from other regions that point a possible way forward for the Bay Area. Solving them requires collaboration across jurisdictions or separate institutions. Addressing them will strengthen the region’s economic competitiveness; ignoring them will threaten it.

Issue 1: Jobs are sprawling in a decentralized pattern with too few adjacent to reliable transit.

During the post WW II years – when regional planning laid the groundwork for our great regional victories around transportation and open space – jobs were more heavily concentrated in fewer centers. San Francisco alone accounted for 30 percent of the Bay Area’s jobs in 1960. Today it is about 16 percent.

Increasingly, jobs are spreading out and existing centers and transit areas are not capturing a big share of the growth. While the decades since 1960 coincide with the rise of Silicon Valley and the boom in jobs in Santa Clara County, the pattern of those jobs was a shift from the past. Most new employment took place in emerging office parks and corporate campuses with easy access to freeways and suburban arterials.

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1 See: http://www.abag.ca.gov/jointpolicy/
2 See: http://onebayarea.org/regional-initiatives/plan-bay-area.html
Talent Flows and Diversity

Silicon Valley continues to attract foreign and domestic talent, while educational attainment differs by racial and ethnic group.

**Why Is This Important?**

Silicon Valley’s most important asset is its people, who drive the economy and shape the region’s quality of life. Population growth is reported as a function of migration (immigration and emigration) and natural population change (the difference between the number of births and number of deaths). Delving into the diversity and makeup of the region’s people lends a way to better understanding our assets and outlining our challenges.

The number of science and engineering degrees awarded regionally helps to gauge how well Silicon Valley is preparing talent for our specialized, 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 the world. In particular, immigrant entrepreneurs have contributed considerably to innovation and job creation in the region. 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?**

Silicon Valley’s population continues to grow at an increasing rate, driven primarily by an influx in foreign migration. While historically stable, natural population change (births minus deaths) continues a pattern of decline, falling three percent from 2011. Net migration has reached a 15-year high with a net gain of over 11,000 people. Diverging from the historical pattern of net out-flows of American citizens from Silicon Valley, both foreign-born and domestic residents comprised the migration increase into the region over the past two years.

Silicon Valley’s population has a higher concentration of young working-age residents than the nation. In Silicon Valley, 25 to 44 year olds represent the largest portion of the region’s population, a trend mirrored in the state. In contrast, nationwide, the 45 to 64 year old age bracket is the largest age group. Although age distribution across the three geographies is similar, Silicon Valley has a lower percentage of residents under age 24 compared with the state and nation.

Educational attainment across all ethnic and racial groups is notably higher in Silicon Valley than the state. Since 2006, gains have been made across a majority of ethnicities in the region. In 2011, the share of Asian adults with at least a bachelor’s degree rose to 59 percent, compared to 49 percent statewide. However, the proportion of Hispanic and African American adults with higher education levels slipped, to 23 percent and 14 percent respectively. Statewide, California has made steady improvements across all ethnic and racial groups since 2006.

The number of science and engineering (S&E) degrees conferred in the region has consistently grown since 2007 and has expanded 32 percent since 1995. Silicon Valley reported a three percent increase in S&E degrees conferred in 2011 compared to six percent nationally.

Silicon Valley continues to attract a high proportion of foreign-born professionals, particularly in science and engineering. In 2011, almost half of all employed Silicon Valley residents with a bachelor’s degree or higher were foreign-born. Sixty-four percent of those in science and engineering were foreign born. This compares with only 26 percent of science and engineering professionals nationwide. While the number of foreign-born professionals in Silicon Valley decreased slightly with the Great Recession, numbers have increased since 2009 to more than 270,300 in 2011, 40 percent of whom are in science and engineering industries.

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Silicon Valley’s population is growing at an increasing rate, driven by expanding migration.

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Data Source: California Department of Finance Analysis: Collaborative Economics
Net migration reaches more than a decade high

Fifty-six percent of Silicon Valley's population is between the ages of 25 and 64, the core working age groups

Santa Clara & San Mateo Counties, California, and the U.S.
2011

Silicon Valley
23%  8%  30%  26%  12%

California
25%  11%  28%  25%  12%

United States
24%  10%  26%  27%  13%

Data Source: U.S. Census Bureau, 2011 American Community Survey
Analysis: Collaborative Economics
Education and diversity vary across ethnicities. Science and engineering degrees conferred continue to grow in the region and the nation.
Silicon Valley continues to attract highly-skilled immigrants.

Foreign-born talent strongly influences Silicon Valley.

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

Silicon Valley’s improving employment numbers outpace national and state recovery trends.

**Why Is This Important?**

Employment gains and losses are a core means of tracking economic health and remain central to national, state, and regional conversations. Over the course of the past few decades Silicon Valley (like many other communities) has experienced shifts in the composition of industries that underlie the local economy. While employment by industry 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. A large number of science and engineering jobs regionally indicates a local workforce equipped with strong skills that are valuable for generating new ideas and innovative products and services. The way in which the region’s occupational patterns change shows how well our economy is maintaining its position in the global economy.¹

**How Are We Doing?**

Silicon Valley’s residential employment (Santa Clara and San Mateo Counties) is increasing at a faster rate than the state and the nation. From December 2011 to December 2012, regional employment grew 3.6 percent compared to 1.7 percent in both the state and the nation. San Francisco slightly outpaced Silicon Valley’s employment growth, reporting a 3.7 percent growth over the same time frame, adding over 15,900 jobs. Over the 12-month period, Silicon Valley added more than 42,360 jobs, bringing employment levels to 1.22 million overall. Unlike the state and the nation, the region’s employment has surpassed pre-recession (December 2007) levels by 4.6 percent, while employment levels fell 1.9 in the state and 2.2 percent in the nation.

In the second quarter of 2012 the greater Silicon Valley (including Scotts Valley, Fremont, Newark, and Union City) registered a four percent increase in employment, the largest jump since Q2 2000. Job growth cannot be attributed to any one industry; Silicon Valley made employment strides across all major areas of employment activity, except manufacturing and life sciences. From Q2 2011 to Q2 2012, Innovation & Specialized Services shot up seven percent and Community Infrastructure employment expanded three percent, adding nearly 26,000 new positions. The healthcare and social assistance sector has emerged as the third largest private industry sector in Santa Clara County, employing about ten percent of the county’s workers and creating a notable economic impact.²

Unemployment rates in Santa Clara County improved across all race and ethnic backgrounds between 2010 and 2011, although ranging from 5.6 percent to ten percent. The region saw pronounced declines in the proportion of unemployed residents to the working age population in Other Races (-1.5%), Asian (-1.3%) and African American (-1.0%), though unemployment remained at least two percentage points above pre-recession levels. Unemployment rates in Silicon Valley similarly improved across all educational levels in 2011, except for residents with only a high school diploma. The unemployment rate for residents without a high school diploma dropped the most, though rates remained high at 8.3 percent. Residents with a bachelor’s degree or higher witnessed a 0.8 percent drop in their unemployment rate, at 5.1 percent.

In 2011, Silicon Valley employed 204,560 individuals in Science and Engineering (S&E) industries, a four percent increase from eleven years prior. Regional science and engineering employment is concentrated within Computer and Physical Engineering, comprising 85 percent of overall S&E employment. Nationally, S&E talent has grown ten percent since 2000, while talent is divided more evenly across industries.

Unemployment rates continue to decline as the economy in Silicon Valley and the rest of the United States recovers from the recession. Unemployment rates have been trending downwards from an all time high in January 2010. Over the past year Silicon Valley’s unemployment rate fell 1.2 percent to 7 percent in December 2012. The state reported a 1.2 percent drop, followed by the nation declining 0.7 percent. Despite these gains, full recovery is still a long way off; pre-recession unemployment rates in Silicon Valley were 4.3 percent.

According to a Brookings study, the San Jose metropolitan region’s exports represented 18 percent of its total gross domestic product (GDP) in 2010, ranking it fourth out of the top 100 metro areas in the nation. Computer & Electronics exports constituted more than half (53.8%) of total exports, generating $12.24 billion of wealth for the region.³

³ Residential employment data are from the U.S. Bureau of Labor Statistics and are based on the two-county definition of Silicon Valley including Santa Clara and San Mateo Counties. Quarterly job growth data are from the California Employment Development Department. Labor Market Information Division and are based on the broader Silicon Valley definition including Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.¹


Regional employment has **surpassed** pre-recession levels.
Monthly employment continues upward climb

**Silicon Valley Employment in Public Sector Major Areas of Economic Activity**

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>Q2 2012</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government Administration</td>
<td>11,870</td>
<td>10,734</td>
<td>-10%</td>
</tr>
<tr>
<td>State Government Administration</td>
<td>79</td>
<td>33</td>
<td>-58%</td>
</tr>
<tr>
<td><strong>TOTAL EMPLOYMENT</strong></td>
<td>11,949</td>
<td>10,767</td>
<td>-10%</td>
</tr>
</tbody>
</table>

*Data for December 2012 is preliminary
Note: Data is not seasonally adjusted.
Analysis: Collaborative Economics

**Quarterly Job Growth**

Quarterly job growth reached over a decade high

Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages
Analysis: Collaborative Economics
Average annual employment posted gains across nearly all sectors.

Silicon Valley Employment Growth by Major Areas of Economic Activity

<table>
<thead>
<tr>
<th>Major Areas of Economic Activity</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation &amp; Specialized Services</td>
<td>+3%</td>
<td>+7%</td>
</tr>
<tr>
<td>Information Products &amp; Services</td>
<td>+6%</td>
<td>+5%</td>
</tr>
<tr>
<td>Community Infrastructure</td>
<td>+1%</td>
<td>+3%</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>-16%</td>
<td>-5%</td>
</tr>
<tr>
<td>Business Infrastructure</td>
<td>+2%</td>
<td>+4%</td>
</tr>
<tr>
<td>Life Sciences*</td>
<td>+1%</td>
<td>-0.03%</td>
</tr>
<tr>
<td>TOTAL EMPLOYMENT</td>
<td>+2%</td>
<td>+4%</td>
</tr>
</tbody>
</table>

Santa Clara County 2010-2011

- African American: -1.0%
- Hispanic: -0.8%
- Other: -1.5%
- White: -0.5%
- Asian: -1.3%

Unemployment declining across all ethnicities.

Unemployment rates range from eight to ten percent for Silicon Valley residents without a bachelor’s degree.

Silicon Valley 2010-2011

- Less than High School Graduate: -1.5%
- High School Graduate: +0.3%
- Some College or Associate’s Degree: -1.2%
- Bachelor’s Degree or Higher: -0.8%

Economic Impact of Hospitals

Santa Clara County 2010

- Hospital Employment as a Percentage of Total Employment: 10%
- Employment Growth 2000-2010: 25%
- Full-Time Equivalent Jobs Supported: 23,359
- Average Annual Earnings of Workers: $113,320

Data Source: ALH Urban & Regional Economics
Note: Data are for 2010 operations and reflected in 2011 dollars.
Physical engineering and computer talent is driving growth in S&E employment.

Regional unemployment rate dropped 1.2 percent from December 2011 to December 2012.

Analysis: Collaborative Economics

Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2011 American Community Survey PUMS
Analysis: Collaborative Economics

Exports Share of Metro GDP
2010, San Jose MSA
18%
Rank, Largest 100 Metros
4th

Top Export Industry by Dollar Value and Share of San Jose MSA Exports, 2010
Computers & Electronics
$12.24 billion – 53.8%

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S M Y

Science and Engineering Talent by Category

Santa Clara & San Mateo Counties

Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2011 American Community Survey PUMS
Analysis: Collaborative Economics

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

Analysis: Collaborative Economics

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Innovation

Labor productivity continues to rise but patent registrations remain relatively flat and venture capital investment has declined.

Why Is This Important?

Innovation is a driving force behind Silicon Valley’s economy and a key source of regional competitive advantage. Innovation leads to the translation of ideas into novel products, processes and services that create and expand business opportunities. Innovative capacity hinges upon investment, the generation of new ideas, value-added across the economy and small business innovation funding. Patent registrations track the generation of new ideas and the ability to disseminate and commercialize these ideas. 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?

Labor productivity, or value added per employee, in Silicon Valley has grown every year since 2008, reaching the highest value reported of $157,100 in 2012. Over the previous year, value added per employee in both the region and California increased 1.7 percent, while growing 0.9 percent across the nation. In the past decade, value added per employee grew at a faster rate in Silicon Valley (47%) compared to California (33%) and the United States (29%).

Silicon Valley represented 48 percent of the state’s total patent registrations in 2011, a fall of 0.7 percentage points from the year prior. Despite declining as a percentage of California patents, Silicon Valley registered 1.5 percent more total patents in 2011, though California witnessed a three percent jump in patent registrations. Nationally, patent registrations grew just under one percent.

Regional patent registrations in 2011 numbered 13,520, nearly 200 more patents than 2010. Consistent with past years, Computers, Data Processing & Information Storage comprised the largest portion of patents in Silicon Valley, representing 39 percent of the region’s total patents. Health experienced the largest gain of patent registrations over the last year, adding 220 registrations to reach a total of 1,130 patents. Measuring, Testing & Precision Instruments saw the biggest drop with 95 fewer patents, or ten percent less than in 2010.

After rebounding from the recession, venture capital (VC) investment in Silicon Valley decreased for the first time since 2009, down to $6.5 billion. This represented a 17 percent decline from 2011 levels, with a significant drop in VC investment in the third and fourth quarters of 2012. However, San Francisco investment increased 22 percent in 2012 to $3.4 billion. Taken together, these two regions accounted for 37 percent of the nation’s total investment and 70 percent of California’s investment. By industry, Software continues to attract the largest share of total investment (38%), and was one of only five industries to see an increase in investment between 2011 and 2012.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards are highly competitive federal grant programs. These grants are reserved for applicant teams led by for-profit companies with fewer than 500 employees. Silicon Valley’s small businesses were awarded 184 grants in 2011 through the SBIR and STTR programs, 28 percent less than in 2010. While the number of awards decreased, Silicon Valley garnered nearly $91 million from these grants suggesting that higher number of smaller awards were issued. This marked a 30 percent improvement over 2010 award levels and a 67 percent increase from 1990.
Despite an increase in patent registrations, Silicon Valley’s share of California’s patents has fallen recently.

Patent registration improve slightly over 2010 levels and are concentrated in Computers, Data Processing & Information Storage.
Silicon Valley venture capital investment declined following a period of recovery, while San Francisco investment expanded.

Software represents 38 percent of total venture capital investment.
Small business innovation and technology award funding is up as award numbers drop.
Entrepreneurship

Angel investment, small business loans and IPOs have all increased, although entrepreneurship has been constrained by limited access to financing.

**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 to start and grow businesses.

The activity of mergers and acquisitions (M&As) and initial public offerings (IPOs) indicate that a region is cultivating innovative and potentially high-value companies. Angel investments are vital for startups and small business financing is necessary for both new and established businesses wanting to grow. Growth in firms without employees indicates that more people are going into business for themselves. The movement of businesses to and from Silicon Valley provides some insight into the continued attractiveness of the region.

**HOW ARE WE DOING?**

The percent of the population starting a business has dropped slightly in Silicon Valley since the early 2000s, while growing in California, other parts of the San Francisco Bay Area and the U.S. as a whole. However, since this is a measure by place of residence, the geographic distribution does not indicate necessarily where the business is located.

The total number of U.S. IPO pricings edged up from 2011 levels, and the distribution has shifted. Silicon Valley reached a five-year high of 17 pricings in 2012, representing 52 percent of IPOs statewide and 15 percent nationally. The number of U.S. pricings from global companies has been cut in half, while gains have been seen in IPOs throughout the rest of the state and nationally.

Between Q3 2011 and Q3 2012, the number of M&As decreased in both the region and the state. M&As dropped by eight percent in Silicon Valley and eleven percent in the state, boosting Silicon Valley’s share of all California M&A deals. In 2012, Silicon Valley accounted for 54 percent of all California M&A deals, and 11 percent of all U.S. deals.

Disclosed angel investment has expanded in the region in recent years, totaling more than $34 million in Silicon Valley and more than $21 million in San Francisco in Q3 2012. Silicon Valley angel investment has increased dramatically, rising 90 percent in the past year alone. Silicon Valley and San Francisco together capture nearly half (45%) of the total angel investment in the state, though this share has decreased in recent years given the increase in total California angel investment, which has more than quadrupled since 2007.

Following a year of decline, Silicon Valley reported robust establishment growth in the last observable period (January 2010-I). The region added a total of 46,400 new establishments, up 146 percent over the prior year. Business closings declined 72 percent over the same period.

The number of businesses without employees continues to grow in the region (relative rates up ten percent), albeit at a slower rate than California (+12%) and the U.S. (+13%). This suggests that a greater number of entrepreneurs are starting businesses without employees. Most nonemployer firms are self-employed individuals whose businesses are not necessarily their primary source of income. Therefore, firms without employees create notably less economic impact than businesses with employees. Twenty-six percent of the region’s nonemployer firms were in the Professional, Scientific, & Technical Services sector in 2010. Nationally, this sector encompasses only 14 percent of firms without employees and 18 percent statewide, suggesting that Silicon Valley is specialized in the sector.

Access to small business loans has improved. Following a precipitous drop in 2009 that continued into 2010, the number and total value of small business loans increased in 2011. Small business loans in Silicon Valley rebounded 16 percent in 2011 compared to 2010, totaling 68,975 loans. Over the same year, total loan values loans jumped five percent in the region and seven percent in the nation as a whole. Since 1996, the number of small business loans has increased 237 percent in the region and total value has grown from $1.88 to $2.01 billion.

Rates of entrepreneurship have dipped slightly in Silicon Valley, while growing in other parts of California and the U.S.

---

**Percent of Population Starting a Business**

![Chart showing rates of population starting a business by geographic area.](chart)

Rates of entrepreneurship have dipped slightly in Silicon Valley, while growing in other parts of California and the U.S.

---

U.S. IPO pricings **up across the nation**, though with fewer international companies.

Mergers and acquisitions **fell in the region**, while accounting for **a larger portion** of total state deals.

Angel investment **rose by 90 percent** in Silicon Valley in 2012.

**DATA SOURCES:**
- Initial Public Offerings: Data Source: Renaissance Capital’s IPOhome.com, Analysis: Collaborative Economics
- Mergers & Acquisitions: Data Source: Factset Mergerstat LLC, Analysis: Collaborative Economics
Entrepreneurship

Establishment Churn
Santa Clara & San Mateo Counties

Firm openings outnumber firm closings nearly four to one

Nonemployer growth rate up in Silicon Valley, while trailing the state and nation

Relative Growth of Firms Without Employees
Santa Clara & San Mateo Counties, California and the U.S.

Firms Without Employees in 2010

<table>
<thead>
<tr>
<th></th>
<th>Silicon Valley</th>
<th>California</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>183,632</td>
<td>2,814,409</td>
<td>22,110,628</td>
</tr>
</tbody>
</table>

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

Data Source: U.S. Census Bureau, Nonemployer Statistics
Analysis: Collaborative Economics
The majority of Silicon Valley nonemployer firms are in Professional, Scientific, & Technical Services.

Small business loan total value and number rebound after three years of decline.
Commercial Space

Commercial real estate markets continue to rebound in Santa Clara County as rents rise, vacancies decline and supply tightens.

Why Is This Important?

Tracking the supply of commercial space, vacancy rates and asking rents (i.e., the rent listed for new space) provides leading indicators of regional economic activity. In addition to office space, commercial space includes R&D, industrial, and warehouse space. A negative change in the supply of commercial space suggests strengthening economic activity and tightening in the commercial real estate market. The change in supply of commercial space is expressed as the combination of new construction and the net absorption rate, which reflects the amount of space becoming available. 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?

Commercial space became slightly more available in 2012 than in 2011 in Santa Clara County, though supply of commercial space continued to decrease overall. Net absorption for all commercial buildings remained strongly positive in 2012, though it fell seven percent from the prior year, suggesting continued demand for commercial leases at more modest levels. New office space construction helped to offset high absorption rates, slightly increasing supply. Vacancy rates continued to decline in 2012 in Santa Clara County overall, though at a slower rate than in 2011 (1.6 percent versus 2.3 percent, respectively). Vacancy in warehouse properties was the only category to increase, though it only rose by 1.1 percent. In contrast, San Mateo County’s commercial vacancies increased, though by less than one percent for all commercial properties.

Annual asking rents for commercial space ticked up across the board in 2012 from the prior year in both Santa Clara and San Mateo Counties, led by increases in office space rental costs. For the counties combined, office space rents increased nine percent, R&D space increased four percent and Industrial/Warehouse space increased seven percent. In Santa Clara County, office buildings continue to drive construction activity in commercial buildings, increasing by 359,400 square feet this year after zero square footage added in any one sector last year. Since 2009, all new commercial space has been attributed to the office sector.

Santa Clara County vacancy rates in commercial space overall continue to fall, while edging up in San Mateo County.

Data Source: Colliers International
Analysis: Collaborative Economics
Commercial rents increased across the board in both Santa Clara and San Mateo Counties.

Commercial Rents
Annual Average Asking Rents
Santa Clara County

San Mateo County

New Commercial Development
By Sector
Santa Clara County

Office space continues to dominate new commercial development.

*As of November 2012 (Santa Clara) and Q3 2012 (San Mateo)
Data Source: Colliers International, Bureau of Labor Statistics
Analysis: Collaborative Economics

*As of November 2012
Data Source: Colliers International
Analysis: Collaborative Economics
Income

Per capita income approaches pre-recession levels, while other income indicators are bleak.

**Why Is This Important?**

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

**How Are We Doing?**

Income growth in Silicon Valley is uneven, and the gap between the high and low income earners is increasing. Average real per capita income has steadily climbed, inching up 2.2 percent from 2011 levels, to reach $67,420. This income level positions it near pre-recession levels ($70,700 in 2007). Since hitting a low in 2009, real per capita income has rebounded ten percent in the region, compared to four percent in California and three percent in the United States.

Between 2009 and 2011 the gap in per capita income widened between the highest and lowest earning racial and ethnic groups in Silicon Valley. Per capita income levels increased across White, Multiple & Other, and Asian categories, growing by four, three, and one percent respectively over two years prior, while income losses were reported across African Americans and Hispanics, dropping 18, and five percent, respectively. State and nationwide per capita income fell across all racial and ethnic groups from 2009 to 2011, though Silicon Valley saw a more pronounced or equivalent decline for some minority groups when compared to California overall.

Median household income fell for the third consecutive year in Silicon Valley and the fourth year in a row statewide and nationally. The region’s median household income dropped to an 11-year low of $84,724, though remaining 45 percent above state levels. Between 2010 and 2011 the region and the state fell 3.8 percent respectively over two years prior, while income losses were reported across all racial and ethnic groups from 2009 to 2011, though Silicon Valley saw a more pronounced or equivalent decline for some minority groups when compared to California overall.

The share of households in Silicon Valley earning over $100,000 fell one percentage point to 43 percent in 2011, while the share of households earning less than $35,000 rose two percentage points to 20 percent over the same period, suggesting a narrowing of the middle income category. The proportion of higher income houses exceeds state (27%) and national rates (21%). Silicon Valley’s increase in share in the highest earning category amid the 2008 recession resulted in part from an increase in the number of earners per household compared to prior years; the number of households with three or more earners rose ten percent between 2007 and 2008 and growth in other household sizes, as the share of additional household members (children, other relatives and non-relatives) grew to 47 percent of total household members in 2008. The share of additional household members remained steady in 2011.

Since 2007, median income relative to educational attainment has declined across the board. Silicon Valley residents with only a high school diploma experienced the largest drop, at 14 percent. A more severe loss in median income was reported for high school graduates statewide (-15%), while faring better nationally (-8%). Since 2009, Silicon Valley professionals with a graduate or professional degree were the only cohort to see an improvement in median income, rising roughly three percent from 2009 to 2011, while falling two percent since 2007.

Food stamp participation in the region is expanding, though it still remains less than half of the statewide average. In 2012, 10.5 percent of Californians benefited from the food stamp program, compared to five percent of the population in Silicon Valley. Since 2008, the percentage of Silicon Valley food stamp program participants has increased roughly two percent, while statewide participation grew 4.4 percent. Nationwide food stamp participation has grown exponentially since 2000, with an additional nine percent of the population participating in the program. The percentage of the population in the region receiving food stamp benefits reached 14.8 percent in 2012, compared to only two percent in 1970 and roughly six percent in 2000.
Per capita income increased across all groups, except African American and Hispanic.
Since 2008, the share of middle income households has declined, while the proportion of additional household members holds steady.

### Household Dynamics

<table>
<thead>
<tr>
<th>2005</th>
<th>2008</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Household Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Householder</td>
<td>57%</td>
<td>53%</td>
</tr>
<tr>
<td>Spouse</td>
<td>37%</td>
<td>35%</td>
</tr>
<tr>
<td>Additional Household Members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td>43%</td>
<td>47%</td>
</tr>
<tr>
<td>Other Relatives</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>Non Relatives</td>
<td>20%</td>
<td>18%</td>
</tr>
</tbody>
</table>

### Individual Median Income by Educational Attainment

- Median income dropped across all educational groups except Graduate or Professional Degree.

### Percent Change in Median Income by Educational Attainment – 2007-2011

<table>
<thead>
<tr>
<th></th>
<th>Silicon Valley</th>
<th>California</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>-13%</td>
<td>-12%</td>
<td>-11%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>-14%</td>
<td>-15%</td>
<td>-8%</td>
</tr>
<tr>
<td>Some College</td>
<td>-10%</td>
<td>-12%</td>
<td>-9%</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>-3%</td>
<td>-7%</td>
<td>-5%</td>
</tr>
<tr>
<td>Graduate or Professional Degree</td>
<td>-2%</td>
<td>-2%</td>
<td>-3%</td>
</tr>
</tbody>
</table>
Food stamp participation **climbs steadily** in region and state.

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

**Santa Clara & San Mateo Counties and California**

<table>
<thead>
<tr>
<th>Year</th>
<th>Silicon Valley</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2001</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>2002</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>2003</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>2004</td>
<td>8%</td>
<td>0%</td>
</tr>
<tr>
<td>2005</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>2006</td>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>2007</td>
<td>14%</td>
<td>0%</td>
</tr>
<tr>
<td>2008</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>2009</td>
<td>18%</td>
<td>0%</td>
</tr>
<tr>
<td>2010</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>2011</td>
<td>22%</td>
<td>0%</td>
</tr>
<tr>
<td>2012</td>
<td>24%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Data Source:** California Department of Finance, California Department of Social Services  
**Analysis:** Collaborative Economics

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

National food stamp participation is **on the rise**

<table>
<thead>
<tr>
<th>Year</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>2%</td>
</tr>
<tr>
<td>2012</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Growth 1970-2012:** +13%

**Data Source:** U.S. Department of Agriculture; U.S. Census Bureau  
**Analysis:** Collaborative Economics
Preparing for Economic Success

Silicon Valley continues to outpace the state in student achievement, while signs of decreasing student preparedness are evident.

Why Is This Important?
The future success of Silicon Valley’s knowledge-based economy depends on younger generations being prepared for and having access to higher education.

Preparation for postsecondary education can be measured by the proportion of Silicon Valley youth that complete high school and meet entrance requirements for the University of California (UC) or California State University (CSU). Educational achievement can also be measured by proficiency in algebra, which is correlated with later academic success. Breaking down high school dropout rates by ethnicity sheds light on the inequality of educational achievement in the region. Disconnected youth, young people who are neither in school nor working, are at greatest risk for being unemployed in the long term. Access to higher education is determined in part by the cost of tuition at colleges and universities as well as the proportion of incoming students that receive financial aid.

How Are We Doing?
Overall, Silicon Valley students are more likely to graduate and meet UC/CSU requirements than the average student in California. During the 2010-11 school year, 47 percent of Silicon Valley students met the UC/CSU requirements compared with 40 percent in the state as a whole. This reflects a two percent drop regionally since 2008-09 and a five percent gain statewide over the same time period. The dropout rate in both the region and the state rose three percent over the last year, with 14 percent of students dropping out in Silicon Valley, and 16 percent in California overall.

There is significant variation in academic achievement among Silicon Valley students. While the overall graduation rate was 87 percent in the 2010-11 school year, only 76 percent of Hispanic students graduated from high school in the region. Asians had the highest graduation rate in 2010-11 at 96 percent, followed by Whites (93%) and Filipinos (91%). With respect to college eligibility, the share of students meeting UC/CSU requirements varied greatly by ethnicity, with a nearly 50 percentage point difference between the highest rates (Asians) and lowest rates (African Americans and Hispanics). African Americans had one of the greatest increases in graduation rates (+3%) from 2009-11, but experienced the largest drop (-4%) in the share of graduates meeting UC/CSU requirements. Meeting UC/CSU requirement rates fell for the bottom three ranked groups (Pacific Islanders, Hispanics, African Americans) in addition to Whites, while all other groups witnessed growth.

Starting in 2011 all students enrolled in Algebra in California were required to take the California Standards Test (CST) in the subject. The share of Silicon Valley eighth graders with advanced or proficient scores in Algebra I fell 1.3 percent in 2012 to 26 percent and 30 percent respectively. This marks the first year since 2007 that fewer advanced scores have been awarded to students. The proportion of students scoring at or below basic increased, with a quarter of eighth graders scoring below basic or far below basic.

Rates of student borrowing and financial aid at Silicon Valley colleges and universities increased slightly during the 2009-10 school year, but remained well below California and national levels. During the 2009-10 school year, 29 percent of Silicon Valley college freshmen took out student loans, far less than both the state (44%) and the nation (54%). The percentage of Silicon Valley college freshmen receiving any form of financial aid rose to 64 percent, while state and national rates declined. Silicon Valley college freshmen who took out loans borrowed an average of roughly $6,900 to pay for the costs of college, a 17 percent increase from the 2008-09 school year. The increase in the average amount of student loans borrowed parallels the rise in average undergraduate in-state tuition in the region, which jumped 16 percent to over $18,000 in the 2009-10 school year.

Silicon Valley has a significantly lower proportion of disconnected youth — youth between the ages of 16 and 19 who are neither in school nor working — as compared to the state overall. While rates of disconnection in the state have been rising, Silicon Valley has seen a decline since 2009. In 2011, disconnected youth levels reached 8.7 percent in the state, nearly double Silicon Valley levels (4.7%).
Silicon Valley graduation rates fell slightly, and the dropout rate expanded.

Graduation rates vary by ethnicity, with Asian, White and Filipino students above the regional average.
The share of Silicon Valley eighth graders scoring at advanced and proficient levels fell in 2012.

There is nearly a 50 percent disparity between the share of graduates in the highest (Asian) and the lowest (African American and Hispanic) groups who meet UC/CSU requirements.

Disconnected youth rates drop in region while increasing across the state.
The proportion of students attending Silicon Valley colleges who receive financial aid ticked up but lags state and national funding levels.

Percentage of Full-Time Freshmen Who Received Student Loans and Financial Aid

<table>
<thead>
<tr>
<th>Year</th>
<th>Santa Clara &amp; San Mateo Counties</th>
<th>California</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>![Chart Data]</td>
<td>![Chart Data]</td>
<td>![Chart Data]</td>
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<tr>
<td>2004-2005</td>
<td>![Chart Data]</td>
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<td>2005-2006</td>
<td>![Chart Data]</td>
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<td>2006-2007</td>
<td>![Chart Data]</td>
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<td>2007-2008</td>
<td>![Chart Data]</td>
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<td>2008-2009</td>
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<td>2009-2010</td>
<td>![Chart Data]</td>
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<td>![Chart Data]</td>
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</tbody>
</table>

Note: Average student loan data show the amount borrowed among full-time, first-time undergraduate freshmen who took out loans. Average tuition data include all enrolled undergraduates.

Data Source: The Institute for College Access & Success, College InSight; National Center for Education Statistics, IPEDS Data Center
Analysis: Collaborative Economics

As tuition costs rise, average borrowing edges up.

Average Student Loans and Undergraduate Tuition

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Student Loans</th>
<th>Average Undergraduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>![Chart Data]</td>
<td>![Chart Data]</td>
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<td>2004-2005</td>
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<td>2005-2006</td>
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<td>2006-2007</td>
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<td>2007-2008</td>
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<td>2008-2009</td>
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<tr>
<td>2009-2010</td>
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</tbody>
</table>

Inflation Adjusted

College Student Debt

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Student Loans</th>
<th>Average Undergraduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2004</td>
<td>![Chart Data]</td>
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<td>2004-2005</td>
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<td>2007-2008</td>
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</tr>
<tr>
<td>2008-2009</td>
<td>![Chart Data]</td>
<td>![Chart Data]</td>
</tr>
<tr>
<td>2009-2010</td>
<td>![Chart Data]</td>
<td>![Chart Data]</td>
</tr>
</tbody>
</table>

Note: Average student loan data show the amount borrowed among full-time, first-time undergraduate freshmen who took out loans. Average tuition data include all enrolled undergraduates.

Data Source: The Institute for College Access & Success, College InSight; National Center for Education Statistics, IPEDS Data Center
Analysis: Collaborative Economics

The proportion of students attending Silicon Valley colleges who receive financial aid ticked up but lags state and national funding levels.
Early Education

Preschool enrollment rates have increased in the region, as eligibility for free or reduced price meals subsides.

**Why Is This Important?**

High-quality preschool has been shown to have positive, long-term effects on children’s learning and development. Once in school, confidence in reading is critical to long-term academic success. 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.1 Success and confidence in reading are critical to long-term success in school.

**How Are We Doing?**

In 2011, close to half (46%) of Silicon Valley children ages three to five were enrolled in preschool, a three percent increase over the previous year. This rate matches the decade high reached in 2006. National and statewide rates remained constant, with 40 and 37 percent of preschool aged children enrolled in school, respectively.

Disparities exist in English-Language Arts proficiency by race and ethnicity. For Chinese, Asian Indian, Korean and Asian students, more than 80 percent of third-graders tested at or above the “proficient” level. Samoan and Vietnamese students demonstrated the most improvement in English proficiency between 2011 and 2012; the share of students achieving proficient and advanced levels in English-Language Arts jumped by six and five percentage points respectively. African American students also had a notable increase of more than four percentage points over the previous year. Among Hispanic students there was little change between 2011 and 2012, and only 35 percent of students scored above basic proficiency in English-Language Arts.

In 2011, 34 percent of Silicon Valley students were eligible to receive free or reduced priced meals at school, nearing 2008 levels. This marked the first year since 2006 that free meal eligibility dropped in the region. Rates fell roughly two percent in both the state and the region over the previous year, with the state reporting 55 percent of all students eligible for such benefits.

Silicon Valley public school enrollment has grown steadily since 2002, increasing by seven percent over the period. Private school enrollment has fluctuated in response to economic and population trends. After peaking in 2006, private school enrollment fell sharply during the recession and has since rebounded slightly. 2011 marked another year of declining private school enrollment levels, and the share of students enrolled in private school of all Silicon Valley students dipped to 12.8 percent, which is a below-average share of enrollment in the 2002 to 2011 period.

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Percentage of Students Eligible to Receive Free or Reduced Price Meals
Silicon Valley and California

Following four years of consecutive gains, student eligibility rates to receive free or reduced priced meals dropped in 2011

Public school enrollment rates grow as private school enrollment takes a hit

Data Source: California Department of Education
Analysis: Collaborative Economics

Public School Enrollment

Private School Enrollment

Data Source: California Department of Education
Analysis: Collaborative Economics
Arts and Culture

Arts and culture fuel economic activity in Silicon Valley and nurture community involvement and development.

Why Is This Important?

Art and culture are integral to Silicon Valley’s economic and civic future. Nonprofit arts and culture organizations are employers, creative producers, and a reflection of regional diversity and quality of life. These unique cultural activities have a significant local impact - attracting people to the area, generating business throughout the community and contributing to local revenues. Arts and culture volunteers in addition to in-kind donations (e.g., donated assets, office space) play a crucial role in supporting and enhancing these regional assets. Comparable data is available on the economic impact of arts and culture in Santa Clara County as a result of the Americans for the Arts III and IV reports.

How Are We Doing?

In 2010, Santa Clara County’s arts and culture industry supported more than 4,200 full-time equivalent jobs and generated more than $5.4 million in local government revenue. The county supported 320 more full-time equivalent jobs in 2010 compared to 2005, though local government revenue decreased ten percent over the same time period. Total spending by the nonprofit arts and culture organizations and audiences was also down ten percent in 2010, but the amount still totaled over $167 million.

Santa Clara County’s in-kind contributions to arts and culture organizations in total amount and per capita both increased between 2005 and 2010. Total contributions in 2010 amounted to more than $7.9 million, up 20 percent from 2005. Per capita contributions in the region increased 14 percent over the five years to $4.4 per capita. However, total contributions at the county level fall behind a number of regions, including Chicago ($9.3) and Portland ($4.7), but remain above Pittsburgh ($3.4).

Santa Clara County maintains a strong position in volunteerism, with more average volunteers per organization than large regions such as Chicago and Portland, though fewer than other regions such as Austin. Santa Clara County had roughly 19 fewer volunteers per organization compared to 2005 with an average of 109 volunteers per organization in 2010.

In 2010, arts and culture events drew 45 percent more attendees compared to major professional and collegiate sports teams in the area. These 2.7 million people in the audience spent nearly $62 million, over half of which was spent locally.7

Santa Clara’s average number of volunteers per arts and culture organization declined, but still ranks well relative to other regions.

Arts and culture event attendance is 45 percent higher than regional sporting events’ audiences.
Quality of Health

Infant mortality rates are down and immunization rates are rising, as new health concerns emerge.

**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 example, 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 mortality rates and obesity 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. Providing care to family members or friends impacts all age and social groups, and will become increasingly important as Baby Boomers age, impacting caregivers’ ability to work and engage in other activities.

**How Are We Doing?**

The percentage of kindergarten students who have received all required immunizations in Silicon Valley has consistently outpaced the state. During the 2011-12 school year, Silicon Valley kindergarten immunization rates edged up to 93.5 percent. Immunization rates in the state showed slight improvement, reaching 91 percent.

Across all categories, more Silicon Valley residents are covered by health insurance plans than California as a whole. Of employed Silicon Valley residents between the ages of 18 to 64, 87 percent had health insurance in 2011, compared to 78 percent statewide. For unemployed Silicon Valley residents, only 62 percent of individuals aged 18-64 had health insurance whereas 96 percent of individuals over the age of 65 were covered. From 2010 to 2011 health insurance rates were fairly consistent across age and employment groups in Silicon Valley, though health insurance coverage increased for both 18 to 64 year olds not in the labor force and employed residents over 65, while health insurance decreased by two percent for unemployed individuals over 65.

Silicon Valley continues to report a lower infant mortality rate than the state overall. From 2009 to 2010, the infant mortality rate in the region dropped significantly, from 3.7 to 2.9 per 1,000 live births. California rates declined slightly from 4.9 to 4.7. Since 1994 infant mortality rates have steadily declined in the state, falling by 2.3 deaths per 1,000 live births. Silicon Valley rates have varied, but dropped by a similar 2.2 deaths over the same time period.

Silicon Valley maintains lower student obesity levels than the state as a whole, while rates in both regions have remained stable since 2005. Silicon Valley levels dropped slightly in 2010 to 33.1 percent of the student population categorized as overweight or obese compared to 38 percent statewide.

Adult obesity levels have fluctuated in Silicon Valley since 2001, but remain below state levels. In 2009, overweight rates in the region fell to 29.7 percent, while the percentage of obese adults reached a decade high (18.8%). The proportion of the adult population statewide that is obese similarly increased to a high of 22.7 percent in 2009. For both Silicon Valley and California, declines in the proportion of overweight adults have been partially offset by increases in the proportion of obese adults. In an effort to combat obesity, Silicon Valley policy makers have launched initiatives including “Let’s Move Silicon Valley Businesses”, whose goal is to encourage businesses to adopt workplace wellness programs for employees and their families.

Of the caregivers in Silicon Valley, over half (60%) are between the ages of 40 and 64. In 2009, 22 percent of Silicon Valley adults and 23 percent of California adults provided care to a family member or friend with an illness or disability in that year. Over a third (34%) of Silicon Valley residents between the ages of 53 and 64 are caregivers, compared to 30 percent in the state. The majority (53%) of Silicon Valley caregivers also work full time, slightly higher than the state average. More than a third of caregivers in the region are unemployed, including retired persons.

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**Kindergarten Immunizations**

<table>
<thead>
<tr>
<th>Percent of Kindergarten Students with All Required Immunizations</th>
<th>Santa Clara &amp; San Mateo Counties, and California</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Silicon Valley</strong></td>
<td><strong>California</strong></td>
</tr>
<tr>
<td>2006-2007</td>
<td>94.7%</td>
</tr>
<tr>
<td>2007-2008</td>
<td>95.1%</td>
</tr>
<tr>
<td>2008-2009</td>
<td>95.1%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>95.4%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>95.2%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>95.0%</td>
</tr>
</tbody>
</table>

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

Kindergarten immunization rates pass 2007/08 levels
Silicon Valley residents are more consistently covered by health insurance plans than residents throughout the state.

### Percentage of Population with Health Insurance

<table>
<thead>
<tr>
<th>Employment Status and Age</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 18-64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>62%</td>
<td>62%</td>
</tr>
<tr>
<td>Not in labor force</td>
<td>80%</td>
<td>81%</td>
</tr>
<tr>
<td>Age 65+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>98%</td>
<td>99%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>98%</td>
<td>96%</td>
</tr>
<tr>
<td>Not in labor force</td>
<td>99%</td>
<td>99%</td>
</tr>
</tbody>
</table>

#### Infant Mortality Rate

Infant mortality rate is significantly down in the region and state.

Data Source: U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics
Student obesity rates hold steady in Silicon Valley and the state.

Obesity levels increase as the percentage of overweight adults falls.

Data Source: UCLA Center for Health Policy Research Analysis of California Physical Fitness Test Data
Analysis: Collaborative Economics

Data Source: California Health Interview Survey
Analysis: Collaborative Economics
Most Silicon Valley caregivers are between the ages of 40 and 64.

Percentage of Age Group that are Caregivers

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Silicon Valley</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-52</td>
<td>22%</td>
<td>26%</td>
</tr>
<tr>
<td>53-64</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>Overall</td>
<td>22%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Work Status of Caregivers

Silicon Valley and California, 2009

<table>
<thead>
<tr>
<th>Work Status</th>
<th>Silicon Valley</th>
<th>California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>53%</td>
<td>52%</td>
</tr>
<tr>
<td>Part-time</td>
<td>41%</td>
<td>48%</td>
</tr>
<tr>
<td>Unemployed, not looking</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Unemployed, looking</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Employed, not at work last week*</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note: Caregivers are defined as adults who have provided care to a family member or friend with an illness in the past year.

Data Source: California Health Interview Survey

Analysis: Collaborative Economics

*Data not statistically significant for Silicon Valley.

Note: Caregivers are defined as adults who have provided care to a family member or friend with an illness in the past year.

Data Source: California Health Interview Survey

Analysis: Collaborative Economics

Over half of Silicon Valley caregivers work full-time and a third are unemployed.
**Safety**

While both adult and juvenile total felony cases continue a downward trend, juvenile felony drug offenses and total assault cases inch up.

**Why Is This Important?**

The level of crime is a significant factor affecting the quality of life in a community. Incidence of crimes and assaults not only pose an economic burden, but also erode our sense of community by creating fear, frustration and instability. Occurrence of child abuse and or neglect is extremely damaging to the child and increases the likelihood of drug abuse, poor education performance and criminality later in life. Research has also linked adverse childhood experiences, such as child abuse and or 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?**

The rate of child abuse cases in Silicon Valley edged up in 2011 to 3.9 cases per 1,000 children, after declining over the previous three years. At the same time, the number of social service employees in the region has consistently declined since hitting a peak of roughly 1,130 in 2002. The rate of child abuse cases in the state has steadily fallen over the past decade and the trend continued in 2011, dropping two percent.

Felony offenses continue to decline in Silicon Valley and California, following a downward trend since 2007. In 2010, the rate of Silicon Valley juvenile felony offenses dropped 12 percent, falling below adults offenses in the region with 801 cases per 100,000 juveniles. Since 1998 the rate of Silicon Valley juvenile felony offenses fell 48 percent, while adult offenses decreased 27 percent.

Since reaching a high in 2005, adult felony drug offenses have consistently declined, reporting a historic low of 304 offenses per 100,000 Silicon Valley adults in 2010. The number of drug and rehabilitation clients have followed suit, dropping a substantial 20 percent in 2010, while increasing overall numbers to roughly 9,380 in 2011. Approaching 2000 levels, the juvenile felony drug rate inched up to 152 offenses per 100,000 juveniles in 2010. Rehabilitation clients jumped 13 percent to a decade high of 1,328 in the same year. Rehabilitation entrance numbers slowed in 2011 to just under 1,250 patients. Over the long term, rehabilitation clients have expanded 65 percent as drug offenses declined eight percent.

The assault rate continues to climb in Silicon Valley for both genders, while falling in the rest of the state. However, the number of cases remains lower in the region, with 149 cases per 100,000 females compared to 208 in the rest of the state and 279 cases per 100,000 males compared to 438 in the rest of the state.

Felony offenses continue a downward trend.
Adult felony drug offense rate **hits decade low**, as rehabilitation clients tick up

Juvenile felony drug offenses **inch up**, as rehabilitation clients remain substantial

Assault rate remains **lower in the region than the state**, but has inched up while state levels drop
**Environment**

*Resource consumption and per capita electricity consumption wane, as electricity productivity and residential solar installations edge up.*

**Why Is This Important?**

Environmental quality directly affects the health of all residents as well as the Silicon Valley ecosystem. The environment is affected by the choices that residents make about how to live—how we choose to access work; purchase goods and services; where we build our homes; our level of consumption of natural resources; and how we enforce environmental guidelines.

Energy consumption impacts the environment with 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.

In recent years, residents and businesses are investing in renewable energy installations. The length of a municipality’s required permitting process can pose significant barriers to the widespread adoption of renewable energy installations and add significantly to the costs. Streamlining the region’s permitting requirements will yield environmental and economic gains.

**How Are We Doing?**

Since 1998, Silicon Valley’s daily per capita waste disposal has fallen steadily, decreasing by 42 percent while the rest of the state only reduced waste by 28 percent. Waste disposal rates continue to decrease, and between 2010 and 2011 Silicon Valley daily per capita waste disposal dropped six percent, compared to a two percent reduction in the rest of California. Silicon Valley has also achieved a greater reduction in total amount of waste since 1995 than the rest of the state, with a 28 percent reduction compared to a 12 percent reduction statewide.

Silicon Valley’s economic output has increased at a faster rate than electricity consumption, with electricity productivity jumping five percent in 2011. In comparison, electricity productivity in the rest of California increased less than two percent over the same time period. Electricity productivity in the region has grown 15 percent since 1998, similar to the rest of the state (14 percent), although Silicon Valley’s electricity productivity was 24 percent higher than the rest of the state in 2011.

Silicon Valley is also becoming more efficient, with electricity consumption per capita falling 2.5 percent in 2011 to roughly 8,300 kWh per person, an eight percent drop from its peak in 2008. The rest of California reported lower electricity consumption per capita at just over 7,200 kWh per person, though it is decreasing at a slower rate than the region. The rest of the state decreased one percent since 2010 and seven percent since 2008.

Overall solar installations in Silicon Valley increased 14 percent in 2012 from 2011. Over half of the solar installations were in the government and non-profit sectors, which jumped 41 percent from the previous year to over 17,500 kilowatts installed. The residential sector installations ranked second with nearly 11,200 kilowatts installed in 2012. New commercial sector installations added roughly 6,000 kilowatts in 2012, a 13 percent drop from 2011 installation levels. Annual solar installations in Silicon Valley are nearly eleven times larger in 2012 compared to 2007.

Median permitting times varied over the past year for the four technologies evaluated. In 2012, permitting for electric vehicle charging stations and solar installations decreased or stayed the same, whereas permitting times for geothermal and wind installations increased. Electric vehicle charging stations continue to have the lowest median permitting time in Silicon Valley cities, with half reporting one day or less and the average time decreasing to about four days in 2012. Permitting time for solar installation also decreased across cities, with half reporting less than three days to obtain a permit. Wind permitting time has fluctuated the most since 2009, but that is due in part to the low number of cities that have new wind installations (and therefore report data). The median permitting time for wind turbines increased to just over 11 days in 2012, though the range of permitting time is similar to 2011. Geothermal installation permitting time increased slightly to a median of 14 days, though the variation in permitting times decreased from 2011.
Silicon Valley daily per capita waste disposal fell six percent compared to a two percent drop statewide.

**Silicon Valley Electricity Productivity**

Silicon Valley electricity productivity jumped 5.2 percent and per capita consumption fell 2.5 percent in 2011.

**Waste Disposal per Capita**

Santa Clara & San Mateo Counties, and the Rest of California

Percent Change 1995-2011 2010-2011

<table>
<thead>
<tr>
<th></th>
<th>Silicon Valley</th>
<th>Rest of California</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-2011</td>
<td>-36%</td>
<td>-26%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>-6%</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Data Source: California Department of Resources Recycling and Recovery, Department of Finance
Analysis: Collaborative Economics
Government and non-profit solar **surges**, as residential edges up and commercial **falls**.

*Data is through December 12, 2012.*

Note: Year based on First Incentive Claim Request Review Date, and includes application status as Completed, PBI-in payment, Pending Payment, Incentive Claim Request Review.

Data Source: California Public Utilities Commission, California Solar Initiative, Palo Alto Municipal Utilities, PV Partners Program, Silicon Valley Power.

Analysis: Collaborative Economics, Optony, Inc.
In 2008, Joint Venture’s Public Sector Climate Task Force launched the Silicon Valley Collaborative Renewable Energy Procurement (SV-REP) Project in partnership with the County of Santa Clara to address the major challenges regarding public sector adoption of renewable energy with limited financial resources. This project led to the largest multi-agency procurement of renewable energy in the U.S., involving 70 sites in 43 locations. In 2011, Joint Venture expanded this initiative in partnership with the County of Alameda and the Contra Costa Economic Partnership. The Regional Renewable Energy Procurement Project (R-Rep) is open to all public agencies in Santa Clara, San Mateo, Alameda and Contra Costa Counties. The collaborative procurement model has been successful at driving down the cost of solar for public agencies, saving participants 75 to 95 percent on upfront costs and 10 to 14 percent cost reductions from volume and competitive pricing, among other benefits. Between 2011 and 2012, 11.4 MW of solar capacity was installed through the collaborative.¹

¹Joint Venture Silicon Valley. The Regional Renewable Energy Procurement Project.

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In the charts above, the blue box represents the range for which the middle 50 percent of the responses fall. The vertical black line in the blue box represents the median (middle) value of the data set. The left-hand line represents the range for the lower 25 percent of the responses, and the right-hand line represents the range for the upper 25 percent.

Permitting times for renewable energy systems remained stable or increased since 2011.
Transportation

Silicon Valley is becoming more interconnected with San Francisco as residents commute to and from both regions and transit ridership increases.

Why Is This Important?
The transportation system for the western part of the United States, Silicon Valley included, was built around the private automobile. Federal and state government funds have supported the construction of thousands of miles of highways designed for the single commuter. However, a growing realization of the impact of carbon-based fuels on our environment and the continued population growth in California and its resulting traffic congestion have led many communities to adopt and support alternative means of transit.

How Are We Doing?
In 2011, California gas prices reached a historic high of $3.93 per gallon. Vehicle miles traveled (VMT) increased five percent for Silicon Valley residents, following four years of declining levels. This simultaneous increase in VMT per capita and gas prices runs contrary to recent trends and is likely due to the region’s gradual recovery from the recession, as residents drive to work (and for pleasure) due to increased employment and rising wages. With the exception of 2009, gas prices have risen steadily each year; from 2009 to 2011 statewide gas prices have increased 35 percent while VMT per capita ticked up two percent.

In 2008 the California legislature passed Senate Bill 375 which called for local governments to lessen greenhouse gas (GHG) emissions specifically by reducing the VMT per capita. By creating higher density development, better alternatives to solo driving, and pricing both driving and parking to reflect the real, social costs of these actions, the effort to reduce VMT is an integrated strategy to reduce the GHG emissions in the state while improving public health outcomes. The Metro Transit Authority (MTA) has jurisdiction over the nine county area that includes Silicon Valley. MTA’s targets for emissions reductions are a seven percent reduction by 2020 and a 15 percent reduction by 2035. The base year for the reductions is 2005. While most of the GHG reductions will come from increased integration of like alternative fuels and more efficient vehicles, reducing the overall miles traveled by single occupancy drivers should create positive social and environmental benefits for the entire region.

Over the last decade, driving alone has continued to be the predominant mode of transportation for commuters. However, since 2003, more people are utilizing other means of transportation than driving to work, leading to a three percent drop in car commuting. Those who commute on a bicycle, motorcycle, or through other means increased 1.2 percent in the eight year span. Public transit and walking grew in relative popularity as well.

Transit ridership ticked upwards 1.3 percent in 2012 after back-to-back declines in 2010 and 2011. Compared to a decade ago, transit usage has dropped off precipitously; per capita transit ridership declined 18 percent from 2002 to 2012, dropping from a high of 33.5 to 27.5 rides per person. In the aftermath of both of the decade’s recessions, transit ridership dipped in the subsequent three years before recovering slowly.

The San Francisco peninsula is increasingly integrated. Silicon Valley continues to see a robust flow of commuters within the two counties as well as between the region and San Francisco. In 2011, a quarter of peninsula commuters lived in San Francisco and commuted to Silicon Valley, while over a third lived in Silicon Valley and worked in San Francisco.
Three-quarters of the workforce drives to work alone, while other commuters are finding alternative forms of transportation.

### Means of Commute Change in Distribution
2003-2011

<table>
<thead>
<tr>
<th>Means of Commute</th>
<th>2003</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Means</td>
<td>90%</td>
<td>91.2%</td>
</tr>
<tr>
<td>Worked at Home</td>
<td>7%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>3%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Walked</td>
<td>2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Carpoled</td>
<td>-2%</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Drove Alone</td>
<td>1%</td>
<td>-0.8%</td>
</tr>
</tbody>
</table>

Note: Other Means includes taxi, motorcycle, bicycle and other means not identified separately within the data distribution.

### Transit Use

Following three years of decline, transit use rebounded and is up 1.3 percent.

### Commute Patterns

The region is interconnected as a significant number of residents work outside their county of residence.
Land Use

Residential density inches up as more approved construction is near transit.

**WHY IS THIS IMPORTANT?**

By directing growth to already developed areas, local jurisdictions can reinvest in existing neighborhoods, increase access to transportation systems, 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.

**HOW ARE WE DOING?**

Low residential density is a sign of urban sprawl. After reporting 20 units per acre or more of newly approved residential development for five years, Silicon Valley’s residential density fell until a recent uptick. Residential density reached 15.5 units per acre in 2012 and has increased 8.9 units per acre since a low of 6.6 in 1998.

Residential and commercial development near public transit reduces the usage of personal vehicles for transportation, decreasing road congestion and harmful emissions. The share of housing units approved near mass transit expanded to 82 percent in 2012, a 15-year high. This large jump from 2011 levels may be due in part to the expanded definition of transit oriented development from 1/4 mile to 1/3 mile in 2012. New housing units near transit totaled 3,619 in 2012, a 20 percent increase from 2011 levels.

In 2012, just over half (51%) of non-residential development was near transit. The net square feet of non-residential development near transit is lower than the previous year, though this is tied to a 31 percent drop in overall development levels.

Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the US 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 1/3 Mile of Rail Stations or Major Bus Corridors**

Silicon Valley

*Beginning in 2012, the definition of transit oriented development has been changed from 1/4 mile to 1/3 mile.*

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

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### Development Near Transit

**Change in Non-Residential Development Near Transit**

Silicon Valley

*Beginning in 2012, the definition of transit oriented development has been changed from 1/4 mile to 1/3 mile.*

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

---

**New Housing Units Near Transit**

<table>
<thead>
<tr>
<th>Year</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3,095</td>
</tr>
<tr>
<td>2010</td>
<td>3,735</td>
</tr>
<tr>
<td>2011</td>
<td>2,218</td>
</tr>
<tr>
<td>2012</td>
<td>2,000</td>
</tr>
<tr>
<td>2013</td>
<td>1,220</td>
</tr>
<tr>
<td>2014</td>
<td>3,129</td>
</tr>
<tr>
<td>2015</td>
<td>3,120</td>
</tr>
<tr>
<td>2016</td>
<td>3,054</td>
</tr>
<tr>
<td>2017</td>
<td>3,120</td>
</tr>
<tr>
<td>2018</td>
<td>3,028</td>
</tr>
<tr>
<td>2019</td>
<td>3,619</td>
</tr>
</tbody>
</table>

**Net Square Feet of Non-Residential Development**

- Net Square Feet of Non-Residential Development Further than 1/3 of a Mile from Transit
- Net Square Feet of Non-Residential Development Near Transit

---

**A great proportion of approved non-residential construction is near mass transit, while overall development falls.**

---

**Notes:**

- **Development Near Transit:**
  - Data Source: City Planning and Housing Departments of Silicon Valley
  - Analysis: Collaborative Economics

- **Housing Near Transit:**
  - Data Source: City Planning and Housing Departments of Silicon Valley
  - Analysis: Collaborative Economics
The economic situation for current homeowners is improving, though approvals for construction of new affordable housing in 2012 dropped. Although the financial pinch for current homeowners lessened in 2012, OW DOING WARE is becoming increasingly saturated. The affordability of housing impacts a region’s economy and quality of life. A lack of affordable housing results in longer commutes, diminished productivity, curtailment of family time and increased traffic congestion. It 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. As a region’s attractiveness to new residents increases, home sales, average home prices and rental prices tend to increase. If not matched with new construction, higher housing prices will decrease the affordability of the area. The most recent recession severely disrupted the residential housing market, and foreclosures and underwater mortgages shed light on the status of the recovery to date.

Homeowners are feeling relief from the housing cliff, while the rental market is becoming increasingly saturated.

WARNING

Building Affordable Housing

Since hitting a low point in 2008, home sales have leveled off, reaching roughly 29,000 in 2011. In the first half of 2012, home sales in the region reached 16,000, suggesting an overall increase in the annual number. Average sale prices have held steady over the past four years, rising two percent over last year to $671,926. While single family housing starts inched up in 2011, a significant drop in multi-family housing construction led to an overall 42 percent fall over the previous year. Through November 2011, 2,653 new housing starts were constructed compared to over 6,200 in 2006.

Annual Silicon Valley foreclosures have consistently dropped since a high of 8,831 in 2008. This year continues the trend, with significantly fewer (-41%) foreclosures reported in the first half of 2012 as compared with the first half of 2011. As of June 2012, 1,841 homes have been foreclosed upon, half the rate of foreclosures from January to June 2008, during the peak of the housing crisis. California foreclosures have also subsided, with 51,424 in the first part of 2012, a 54 percent drop from the level of foreclosures in the first half 2008.

Silicon Valley’s rate of underwater mortgages varies widely within the region, and has fluctuated over time. After a year of increasing rates, Silicon Valley underwater mortgages dropped to 19 percent in the second quarter of 2012. This rate compares to 37 percent in California and 31 percent in the U.S. In Newark, Union City, and Gilroy, the three cities with the highest percentage of underwater mortgages in the region, this rate was 25 percent and above. Los Altos, Saratoga, and Cupertino, the three cities faring the best, had rates of less than five percent.

Although the financial pinch for current homeowners lessened in 2012, there is more comparative demand for rental housing than homeownership in Silicon Valley, which has decreased affordability for renters. In 2012, Silicon Valley average rents reached a decade high of $1,966, a ten percent increase over the prior year. Conversely, median household income continues to decline for the third consistent year, falling 3.8 percent in 2011 to a decade low. In 2011, the proportion of renters with housing costs greater than 35 percent of their income reached a peak of 39 percent in Silicon Valley, a trend mirrored in California by an increase of 46 percent.

Approvals for construction of new affordable housing in 2012 dropped to the lowest levels of the 15-year reporting period, compounding housing affordability challenges for Silicon Valley’s middle and lower income residents. The 83 approved new affordable housing units represented only two percent of total new residential units in 2012, a 68 percent drop from 2011.

The economic situation for current homeowners is improving, though demand from potential homeowners to purchase homes remains flat. In 2011, the percent of Silicon Valley (36%) and California (38%) homeowners burdened by housing costs dropped three and two percent respectively. Over the last decade, mortgage payments have represented a growing percentage of household incomes both in the region and the state; however, this rate has been declining since 2008. The percentage of first-time homebuyers that can afford to purchase a median-priced home in Silicon Valley fell slightly in 2012. Los Angeles Area and the state followed a similar declining trend, while other California regions reported increased affordability. Of other California regions, Silicon Valley continues to be the least affordable with only 58 percent of potential first-time homebuyers able to afford a median-priced home.
Average rents reach historic high, as median household incomes dwindle.

Home affordability falls for potential first-time home buyers in Silicon Valley.
**Housing Costs**

Percent of Households with Housing Costs Greater than 35% of Income
Renters and Owners
Santa Clara & San Mateo Counties, California

![Graph showing the percentage of households with housing costs greater than 35% of income for Renters and Owners in Santa Clara & San Mateo Counties, California from 2002 to 2011.](image)

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

**Housing Starts**

San Jose MSA

<table>
<thead>
<tr>
<th>Year</th>
<th>Single Family</th>
<th>Multi Family</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2,189</td>
<td>4,052</td>
<td>6,241</td>
</tr>
<tr>
<td>2007</td>
<td>2,030</td>
<td>2,553</td>
<td>4,583</td>
</tr>
<tr>
<td>2008</td>
<td>1,288</td>
<td>2,417</td>
<td>3,705</td>
</tr>
<tr>
<td>2009</td>
<td>707</td>
<td>450</td>
<td>1,157</td>
</tr>
<tr>
<td>2010</td>
<td>864</td>
<td>3,706</td>
<td>4,570</td>
</tr>
<tr>
<td>2011*</td>
<td>904</td>
<td>1,749</td>
<td>2,653</td>
</tr>
</tbody>
</table>

*Data is through November 2011
Data Source: Construction Industry Research Board
Analysis: Collaborative Economics

**Trends in Home Sales**

Average Sale Price and Number of Home Sales
Silicon Valley

![Graph showing the average sale price and number of home sales in Silicon Valley from 2002 to 2011.](image)

*Average sale price and forecasted annual home sales are based on first half 2012 figures.
*Data Source: RAND California Statistics
Analysis: Collaborative Economics

Housing cost burden ease for Silicon Valley homeowners but increase for renters in the region.

Average home prices remain relatively stable as annual home sales edge up.
**Residential Foreclosure Activity**

Annual Number of Foreclosures

Silicon Valley

- **Q1 2011:** 10,000
- **Q2 2011:** 9,000
- **Q3 2011:** 8,000
- **Q4 2011:** 7,000
- **Q1 2012:** 6,000
- **Q2 2012:** 5,000
- **Q3 2012:** 4,000
- **Q4 2012:** 3,000
- **Q1 2013:** 2,000
- **Q2 2013:** 1,000
- **Q3 2013:** 0

*Annual residential foreclosures are forecasted based on first half 2012 figures.*

Data Source: RAND California Statistics

Analysis: Collaborative Economics

---

**Number of Foreclosures**

<table>
<thead>
<tr>
<th>January – June</th>
<th>2008</th>
<th>2012</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon Valley</td>
<td>3,690</td>
<td>1,841</td>
<td>-50%</td>
</tr>
<tr>
<td>California</td>
<td>111,718</td>
<td>51,424</td>
<td>-54%</td>
</tr>
</tbody>
</table>

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**Underwater Mortgages**

Percentage of Silicon Valley Home Mortgages that Exceed Home Worth

Silicon Valley

- **Q1 2011:** 25%
- **Q2 2011:** 20%
- **Q3 2011:** 15%
- **Q4 2011:** 10%
- **Q1 2012:** 5%
- **Q2 2012:** 0%

Underwater mortgages in Silicon Valley have fluctuated over the past year and a half, once again falling sharply in Q2 2012.

Data Source: Zillow Real Estate Research, Negative Equity Report

Analysis: Collaborative Economics

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**Underwater Mortgage Rates in Top and Bottom Three Cities in Silicon Valley**

<table>
<thead>
<tr>
<th>January – June</th>
<th>Q1 2011</th>
<th>Q2 2011</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newark</td>
<td>37%</td>
<td>37%</td>
<td>0%</td>
</tr>
<tr>
<td>Gilroy</td>
<td>41%</td>
<td>35%</td>
<td>-6%</td>
</tr>
<tr>
<td>Union City</td>
<td>26%</td>
<td>25%</td>
<td>-1%</td>
</tr>
<tr>
<td>Cupertino</td>
<td>5%</td>
<td>4%</td>
<td>-2%</td>
</tr>
<tr>
<td>Saratoga</td>
<td>4%</td>
<td>3%</td>
<td>-2%</td>
</tr>
<tr>
<td>Los Altos</td>
<td>3%</td>
<td>2%</td>
<td>-1%</td>
</tr>
</tbody>
</table>

Note: Rank based on Q2 2012 figures

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*Annual residential foreclosures are forecasted based on first half 2012 figures.*

Data Source: RAND California Statistics

Analysis: Collaborative Economics

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**About the 2013 Index**

- Map of Silicon Valley
- Table of Contents
- Index 2013 Highlights
- Index at a Glance
- Special Analysis
- People
- Economy
- Society
- Government
- Appendices
- Acknowledgments
City revenue increased slightly in 2011 for the first time since the recession.

**Why Is This Important?**

Many factors influence local government’s ability to govern effectively, including the availability and management of resources. To maintain service levels and respond to a changing environment, local government revenue must be reliable.

Property tax revenue is the most stable source of city government revenue, fluctuating much less over time than other sources of revenue, such as sales, and other taxes. Since property tax revenue represents less than a quarter of all revenue, other revenue streams are critical in determining the overall volatility of local government funding.

**How Are We Doing?**

City revenues increased by one percent in Silicon Valley in 2010-11, reversing the downward trend seen in the region since the 2008 recession. Other taxes, including transportation and lodging taxes, increased by ten percent since 2009-10 and currently account for 24 percent of all city revenue. Property tax revenue was down by five percent in 2010-11, though it still accounted for 23 percent of all city revenue in Silicon Valley. Since property tax collection lags the real estate market, the full effects of the decline in the real estate market will become increasingly apparent in lower property tax revenues. Sales tax revenue has declined steadily in the region over the last decade, falling 37 percent since 2001. This trend was reversed in the last year, with sales tax revenue increasing by three percent in 2010-11. In each of the two counties, voters approved tax measures on the November 2012 ballots, a 1/8 cent sales tax increase in Santa Clara County and a 1/2 cent sales tax increase in San Mateo County for the next ten years.
City revenue in Silicon Valley increased slightly in 2010-2011.

*Other Taxes include revenue sources such as transportation taxes, transient lodging taxes, and business license fees.
**Other Revenue include revenue of use of money and property, sale of real and personal property, and intergovernmental transfers.

Data Source: California's State Controller's Office
Analysis: Collaborative Economics
Today, three quarters of the region’s jobs are within half a mile of a freeway off-ramp. Less than a quarter are within half a mile of the region’s 88 rail stations (a geography that includes nearly every major downtown in the South and East Bay. Even when including frequent bus service in the analysis, only half of jobs are accessible with transit. Fewer are accessible from transit in leading industries like IT and biotech (35 and 27 percent respectively).14

What are the key trends?

- Job densities in California are declining, even as residential densities increase.15
- Downtowns in San Jose, Oakland and San Francisco represent a declining share of regional employment.16
- The region’s transit core in all cities is declining in employment
- The region’s transit core in all cities is declining in employment share. Priority Development Areas (PDAs), locally identified places that include minimal regional transit nodes, declined from 53 percent of regional jobs in 1990, to 48 percent in 2010.17
- Less than 50 percent of all jobs are currently even accessible from regional rail or high frequency bus or light rail stations. (Figure 1)
- Transit ridership began to decline in 1960 from over 15 percent of commute trips to approximately 9 percent in 1990. Since then it has increased only slightly to less than 11 percent of all commute trips.18
- While just over one quarter of all office building square footage (28 percent) is within a half-mile of rail, well over 80 percent is within a few miles. (Figure 2)
- Many jobs have located adjacent to highways, many of which were built in recent decades with local or regional funds and support. The millions of square feet of office development bordering 101 or in office parks like Bishop Ranch is evidence of this phenomenon.

Yet face-to-face interaction that can occur naturally in denser work settings is increasingly recognized as important for the process of innovation.19 And densities are much greater in traditional downtown areas near transit than in newer less transit-oriented job centers and office parks.

As the Bay Area’s embraces transit-oriented development (TOD), it is increasingly clear that TOD needs more jobs near transit, not just homes. Studies show that people are most likely to take transit to work if their job is immediately accessible from transit, even if they live further away from transit.20

Further, we design our transportation systems to meet the peak demand. The “peak” takes place at the commute period in the morning or afternoon. If jobs are scattered and too few people take transit to work, there is pressure to add additional lanes on highways and arterials to accommodate the increased demand. Adding new roadway capacity and lanes is costly and has proven counterproductive. Numerous studies show that increased road capacity leads to more people initially driving on the new lanes which over time results actually in more congestion on the overall system, not less.21

Regional governance takeaway: The location of jobs is a matter of regional concern given its impact on congestion, air quality and the long-term economic vitality. Yet the region has attempted few mechanisms to encourage employers to locate near transit or existing downtowns or to bring new transit to existing dense or densifying job centers. Taking on this issue will require cooperation among cities, transit operators and regional agencies, as well as leadership from public and private employers.

14 Reconnecting America, unpublished research as part of “Moving to Work” analysis.
17 See: OneBayArea, “SCS Alternative Land Use Scenarios.”
19 See: http://www.spur.org/urbanwork
21 For further research on induced demand, see Todd Litman work at the Victoria Transport Policy Institute, including
Issue 2: The region needs more overall housing production to remain economically competitive while many jurisdictions choose to limit approval of new housing with little consideration to the regional economic, fiscal and travel consequences.

Over the past several decades housing prices have continued to escalate, making it harder for new people to enter the housing market and putting upward pressure on wages. As such, housing costs act as a drag on overall economic growth as employers must pay higher wages to keep employees, even if their productivity does not match the wage levels. The recent reset of housing prices has not resulted in prices being affordable to the average housing seeker in many places. Just 35 percent of Bay Area residents could afford a house priced at the region’s median level at the end of 2012.  

This was not always the case in the Bay Area.

From 1950 to 1980, the region added 1.1 million housing units, or about 40,000 per year. Homes were widely available and affordable to the burgeoning middle class. Then, from 1980 to 2010, growth slowed to about 24,000 units per year.

Job growth also slowed after 1980 even as home prices continued to increase dramatically. Prior to 1980, the region added 50,000 jobs per year. Since 1980, that figure dropped in half.

How does this relate to regional planning and governance?

Quite simply, there is a mismatch between where the homes are built and where the jobs are located. In recent years, housing prices dropped at the region’s edges and in communities that are most supportive of new housing (particularly in Eastern Contra Costa and Solano Counties). In contrast, housing prices in San Francisco and the Peninsula are generally even higher today in these strong job market areas where there was little new supply in housing over many years.

So the issue is not only one of the region not adding enough new homes to support a growing economy, but also the fact that too few homes were built where job growth was strongest. The irony is that the places with the strongest job growth are historically least supportive of significant new housing production.

The one system designed to sort out how much housing each jurisdiction should approve (called the “Regional Housing Needs Allocation” process) is often contentious in local politics. Some communities have voted to leave ABAG, the regional agency that administers it. At times, jurisdictions are taken to court for failing to fulfill their commitments under RHNA and State Housing Law, including the City of Pleasanton for having a housing cap and Menlo Park for not having updated its housing element in twenty years.

Regional governance takeaway: Home rule gives each community the right to say no – or yes. But the lack of effective regional governance around housing means we get too few homes overall or where they are most needed, and homes have little relationship to job centers. We get “drive until you qualify” and megacommutes for those seeking affordably priced homes. And we get boom and bust residential prices that drag down whole communities when the cycle shifts.
Issue 3: Fiscal inequity among cities results in competition for taxes, primarily from sales and commercial property and disparity in services.

Local government reaps more fiscal benefits from job growth than housing production. Many cities within Silicon Valley promote and attract commercial development and at times do not permit new housing in or near job districts. This restricts the market from providing the housing that is demanded.

When one community in Silicon Valley does not add housing to match nearby job growth, the homes do go somewhere. As noted earlier, often this is further away or in the faster growing cities like San Jose.

But even with evidence that higher density residential development brings in significant revenue, housing does not provide as much in funding to local government as jobs or retail uses and local residents expect more in local services than do workers. As a result, housing-rich cities like San Jose are more cash-strapped than some of their neighbors. For example, Palo Alto has about two and a half jobs per employed resident while San Jose has 0.85 jobs per employed residents. Yet both cities are a part of the same labor market and essentially one housing market. The fiscal outcome of the location of jobs relative to homes is quite stark.

Sales taxes also reflect divergence among cities. Sales taxes per capita in 2011 were $25 in Redwood City, $102 in Fremont, $130 in Sunnyvale and $250 in Menlo Park. Cities that successfully pursue increasing amounts of retail development — particularly high-end retail — capture a larger share of retail sales relative to their neighbors. This approach has been long dubbed “the fiscalization of land use” as cities often make land use decisions to maximize revenues (more retail that brings revenues and less housing that has demand for local services). This approach also fails to acknowledge negative externalities such as the traffic and road impacts of a retail development in one city on a neighboring jurisdiction.

Differences among tax revenues also has a particular impact on education funding since the cities that add housing are also the ones with greater demand for schools. Fees stacked on top of new housing development to pay for such services can also make it more difficult to build housing in the new areas, leading to less overall housing production, a key regional issue.

Regional governance takeaway: The winner-take-all approach to local tax revenues results in fiscal and service disparity among cities. It also undermines regional or subregional cooperation and can lead to inefficient land use outcomes, particularly the oversupply of retail in auto-oriented settings. Fees levied to maintain local services increases housing costs and further harms development opportunities in places where additional development might be most needed.
**Issue 4:** The region’s 27 different transit agencies are uncoordinated and riders have a difficult time navigating this fragmented system.

The Bay Area has an extensive transit system with 3,200 buses, 1,200 rail cars, and 1,200 miles of rail. Each day, the region’s transit operators carry 1.4 million trips, compared with 17 million daily automobile trips in the region.

Yet the Bay Area’s transit system is more fragmented than transit systems in similarly sized metropolitan areas around the country. The “system” is really 27 separate and poorly coordinated agencies, leading to inefficient duplication of some services and fragmentation across jurisdictional lines. Of those 27 systems, seven (BART, Muni, Caltrain, SamTrans, AC Transit, Golden Gate and VTA) account for 93 percent of all riders with the largest operator being Muni.

### Ridership Fragmentation

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Ridership (2008)</th>
<th>Total Operators</th>
<th>Largest Name Operator</th>
<th>Largest Operator Share</th>
<th>Regional Cost per Rider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay Area</td>
<td>484,000,000</td>
<td>28</td>
<td>SFMTA</td>
<td>47%</td>
<td>$.95</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>358,000,000</td>
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<td>SEPTA</td>
<td>95%</td>
<td>.58</td>
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<tr>
<td>Washington, DC</td>
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<td>WMATA</td>
<td>89%</td>
<td>.53</td>
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<tr>
<td>Chicago</td>
<td>628,000,000</td>
<td>15</td>
<td>CTA</td>
<td>84%</td>
<td>.58</td>
</tr>
<tr>
<td>New York City</td>
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<td>37</td>
<td>MTA</td>
<td>82%</td>
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</tr>
<tr>
<td>Los Angeles</td>
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<td>20</td>
<td>LACTA</td>
<td>74%</td>
<td>.64</td>
</tr>
<tr>
<td>Seattle</td>
<td>189,000,000</td>
<td>9</td>
<td>King County Metro</td>
<td>65%</td>
<td>1.03</td>
</tr>
</tbody>
</table>

Source: SPUR analysis and mapping. Data from MTC

Compared to the transit systems of other metropolitan areas the Bay Area’s largest operator carries a far smaller share of passengers. In other regions with similar yearly ridership, the biggest operator carries upwards of 85 percent of users. The costs per rider of the seven biggest Bay Area operators is nearly double that of similar regions.

This will be an increasingly critical issue given the growing fiscal crisis in transit, with agencies across the country facing quickly increasing capital and operating costs. The Bay Area operators are projected to face a combined $17 billion capital deficit and an $8 billion operating deficit by 2035. Some agencies, with sizable and stable sales-tax funding schemes, are better prepared to weather this storm than others, who rely on government transfers or farebox revenues for an outsize portion of their budgets. Every budget cycle, Caltrain in particular is vulnerable to the vagaries of the financial situations of its three voluntarily contributing agencies, which supply about a third of the commuter service’s operating funds. The service lacks a dedicated source of revenue such as from sales taxes.

Riders have trouble navigating the region’s fragmented system with uncoordinated schedules, distinct fares. Despite a lot of transit, the fragmentation of the Bay Area’s system makes it much harder for riders to navigate and results in less ridership.

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19 MTC TSP 2/13/12 Meeting Packet, Slide 34
20 TTP Postings, April 11, 2012, page 10
22 NTD Reports, 2008.
24 The portion of Caltrain funding comes from Santa Clara County’s VTA, San Mateo’s SamTrans and San Francisco’s MTA.
Forty-nine percent of Bay Area commuters cross a county line to get to work, but potential long-distance transit commuters face a number of barriers in the Bay Area:

- **Uncoordinated schedules**: Arrivals and departures at cross-system transfer stations are not well coordinated, often leading to longer-than-necessary wait times.

- **Inconsistent fare policies**: Rides of similar distances can have dramatically different prices. For example, the 40-mile ride from Fremont to San Francisco on BART costs $5.65. The similar-length ride from Oakland to Palo Alto, on BART and Caltrain, costs $9.80, or almost twice as much.

- **Disparate information**: Though public-sector efforts like 511.org and private-sector technology solutions like Google Maps have made trip planning easier in recent years, riders who want to navigate or find service information for multiple systems often must go to several websites or subscribe to several alerts.

- **Varied customer experiences**: Each system has different route-naming conventions, map and signage styles, and brands.

A technology worker’s theoretical transit commute from San Francisco to the SR-237 corridor, the heart of the Silicon Valley, illustrates how critical these problems can be. The fastest such trip can include transfers between four different transit systems. Given the issues outlined above, it is easy to understand why many workers drive alone to work and why technology companies feel the need to provide private commuter shuttles to try to minimize such behavior.

Additional issues rooted in the system’s fragmentation, like the complicated and expensive trip between Caltrain and the San Francisco Airport on BART, add to these issues.

**Regional governance takeaway**: The Bay Area is far less easy to navigate as a transit rider than comparable regions nationally. But this is not the result of insufficient transit. It is because the system lacks unified financing, planning, fares or mapping, all changes that are possible with different governance.

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Issue 5: Climate change's most direct impact on the Bay Area will be from flooding and sea level rise.

For the Bay Area, climate change will bring rising tides and seas as well as more frequent major storms that will produce significant flooding.

Sea levels are predicted to rise, no matter what we do to curb emissions. Some experts estimate that sea levels will rise 16 inches by 2050 and 55 inches by 2100, while others peg increases at 6 to 9 meters by the end of the century. Measurements from the Golden Gate show that rising waters have already been a trend for 50 to 100 years.

Sea level rise is compounded by a reality of more frequent storms. More frequent storms means additional rains. Given that 40 percent of California's land drains into the San Francisco Bay, storm floods last longer here than in higher elevation places. With a major storm during high tide, the region's natural water armaments will not be enough to hold rushing waters away from thousands of homes and jobs as well as major pieces of critical infrastructure.

In short, the 50-year flood could become a yearly event in 2050.

Sea level rise plus flooding will have an outsize impact on the region, given the low-lying and water-adjacent nature of many Bay Area communities. About 330 square miles of land around the Bay is vulnerable to the rates of sea-level rise outlined above over the next half-century. Dozens of leading Silicon Valley firms – from Facebook to Oracle to Cisco are within this area, along with 270,000 residents. Sea-level rise could directly impact as much as $62 billion in development.
Strengthening the Bay Area’s regional governance

It does not even take rising sea levels to put Silicon Valley in danger – some areas are below sea level already. The right kind of earthquake could send a 10-foot water surge across Silicon Valley tomorrow. The formations that currently function as the area’s protective levees are simply piles of mud that were designed to separate salt ponds of different salinity levels, not engineered structures designed to provide flood protection. They could all fail in a seismic event, coupling with a tsunami-driven flood of extra water to cause major damage in the area.

Resource-use and development patterns over the last 100 years have made our resilience to natural disasters even more tenuous in many Bay Area communities. Two hundred and forty square miles of landfill rests along the Bay’s shore, land that was “reclaimed” to be just above current, not future, sea levels. And development has encroached on the Bay’s natural tidal marsh barriers, reducing their effectiveness to keep waters out by absorbing the energy from storm surges.

Current regional bodies – BCDC and the California Coastal Commission – do not have sufficient authority to respond to this issue. The areas affected by rising seas are far larger than the jurisdiction of these agencies.

The two key decisions – about funding and development – require new regional governance. A mechanism for resource pooling and funding for coastal protection and managing sea level rise—whether armoring, barriers, elevated, floating or floodable development, living shorelines or managed retreat—is essential to the region’s long-term survival. Additionally, there is the need to make tough decisions about what should be built in inundation zones and how it should be built. While some adaptation to sea level rise can be very localized – impacts will vary property by property, depending on how houses are structured and how high quality their construction – systematic solutions which require analysis and ultimately protection on a broader, regional scale.

Regional governance takeaway: Climate change-related flooding, storm surges and sea level rise threatens all communities irrespective of jurisdictional boundaries. There is no possible way to prepare, fund or respond to these threats as individual jurisdictions and there is no existing regional entity with authority to help us prepare adequately.

By comparison, Hurricane Sandy brought 14-foot storm surges that flooded large areas of New York City and smaller communities up and down the New Jersey Coast. It resulted in flooded subway tunnels and shut down the Hudson River’s automobile tunnels as well as major segments of highway throughout the region.

See summary of each of these options at http://www.spur.org/publications/library/reports/managingandadaptingtosaltwaterris_110109
A possible future

The Bay Area has responded to big threats with new regional governance in the past. We can do so again. In this section of the Special Analysis, we explore a possible regional future, based on creating new governance systems to respond to the challenges of the day. Each idea is grounded in a governance solution found elsewhere. Here is what we might accomplish:

1. **We focus employment growth near transit in existing downtowns and employment areas.**

   We could look to examples in the Washington D.C. region for some inspiration in putting jobs near transit. For example, the Rosslyn/Ballston corridor in Arlington County focused the vast majority of development adjacent to their rail system, with office uses immediately surrounding the rail station. Nearly 40 percent of residents and employees on this suburban corridor take transit to work, higher than residents of San Francisco.\(^{36}\) At the same time, the upzoning around rail allowed existing single-family residential neighborhoods to remain untouched. Since 1970, this transit corridor grew from 5.5 million to 20.8 million square feet of office space – adding more new office space than exists in downtown Oakland.\(^{37}\) This concentration continues since from 2000-2010, 70 percent of all growth in Arlington County was in the 1.5 square miles directly adjacent to the rail stations on the corridor.\(^{38}\) Other parts of the D.C. region also have significant office development around suburban rail stations. The region was aided by the Federal government as an employer and by having a single transit operator with significant land holdings around stations and a financial incentive for major development.\(^{39}\)

   Much of what took place in the DC suburbs did not require new regional governance, but it did require some tradeoffs between more growth near transit and less further from it. One easy solution for the Bay Area transportation agencies (at the city, county and regional levels) to commit to not fund road highway expansions to job centers that are not proximate to existing employment areas or transit.

2. **We build sufficient amount of housing in the right places to support housing for the workforce.**

   By identifying places for growth, the Bay Area’s Sustainable Communities Strategy takes a step in the direction of regional land use planning. But the SCS could go further and require communities to rezone and approve the housing goals in accordance with the regional plans. The Portland region in Oregon has been successfully implementing a version of this type of regional planning whereby local jurisdictions must adopt zoning that meets the region’s plan. Portland’s regional planning is backed by strong state law and an elected regional body that maintains an urban growth boundary and oversees the planning. Done right, this type of regional planning that requires local compliance is a potential solution for both job sprawl and limited housing production.

3. **We reduce the fiscal inequities among cities by beginning a sales or property tax sharing program at the County level.**

   The Bay Area could consider adopting a tax-sharing scheme at the county level, such as within Santa Clara County. Such a system would likely focus on sharing growth in taxes, not redistributing existing taxes. This is a more modest approach than what takes place around Minneapolis and St. Paul. Since 1975, the seven county Twin Cities region has been sharing a portion of its taxes among jurisdictions, 40 percent of the growth in the commercial and industrial tax base across all municipalities across seven counties goes into a regional pool and is then redistributed based on population and the existing tax base. The net result is that nearly two-thirds of households live in areas where they receive more than they put in with some communities like Minneapolis shifting between receiving and contributing.\(^{40}\) The major benefit though is that the tax sharing reduces competition between jurisdictions for commercial and industrial development as all share in the fiscal benefits of such growth. Ultimately an investment such as a firm expansion happens because of the broader regional economy, not because of some micro-specific local action.

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4. **We reduce the fragmentation of transit operators by bringing regional transit operators under one roof.**

In Seattle, Sound Transit is one example of this potential. Formed as a result of an agreement between the three Seattle-area counties and authorization by the Washington state government, the agency plans and manages all regional rail and bus services while each county still runs its own local bus services. Not only has the organizational structure allowed the agency to more effectively press the case for sales tax funding, but it also makes the region’s services more cohesive than they might otherwise be. For example the agency maintains a consistent regional visual identity, coordinated schedules, unified fare structure and customer service operations. The Bay Area might go further and pursue a single regional transit operator like Portland, Toronto or New York by merging BART and Caltrain under one agency along with related regional bus systems across the Dumbarton and Bay Bridges.

5. **We prepare for the inevitability of sea level rise and flooding by identifying a way to pay for shoreline infrastructure and by deciding on a land use approach to development in potential inundation areas.**

The City of Rotterdam offers a model for an attempt to “climate proof” the city through floatable buildings and floodable parks. In general, the Dutch may be the most prepared nation on Earth for rising seas, their governance solution involves significant Federal investment in coastal protection. Other parts of the United States, such as New York City and Florida, are preparing for sea level rise and adapting to climate change. The Southeast Florida Regional Climate Change Compact is working across four counties on an action plan that would include “Strategies for the coordinated regional preparation for and adaptation to a rapidly changing global environment based upon regional mapping of projected sea-level rise.” But sea level rise is perhaps one area where the Bay Area need not find a best practice model to adopt. Instead, we have already begun these conversations ourselves across existing governance institutions and will have to quickly decide on who should have the authority to begin making the tough decisions about development in inundation zones.

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42 See: http://www.broward.org/NaturalResources/ClimateChange/Documents/CompactFinal.pdf
Conclusion

Regionalism in the Bay Area has a long history of partial successes. Too often we see ourselves more as residents of a single communities or as belonging mostly to a subregion (South Bay, East Bay) and not as part of the whole. What is sometimes missing is the sense of interconnectedness or an understanding that what happens in one part of the region matters in a big way to another part.

This may be changing and therein lies the opportunity.

Silicon Valley is arguably no longer a geography that ends at the San Francisco county border. Important parts of the labor force reside in San Francisco and commute south just as growing firms and important parts of the technology sector’s value chain take root in buildings near transit in San Francisco and parts of the East Bay traditionally home to other industries. The geographic changes further connect us economically.

At the same time, major events like Hurricane Sandy are a wakeup call to leaders worldwide of the vulnerabilities of all coastal regions. Flooding cuts across city borders and can damage lifeline systems like roads, transit, energy and drinking water.

But if we acknowledge that we are more interconnected and need a different governance system, what are the best options going forward? We identified individual actions above as part of a possible future. Ultimately, strengthening our regional governance is more about degrees of regionalism. As a conclusion, we offer the following three options:

Option 1: Strengthen the governance of existing agencies but maintain them as single purpose institutions. This is the approach of numerous water agencies, which have overcome their respective organizational silos and are now planning to interconnect their systems share water during times of uneven supply. Other examples could be to give MTC more authority to price the region’s freeways or provide BCDC with more land use authority related to responding to sea level rise. The pro of this option is it does not result in any new bureaucracies. The con is that it perpetuates a set of institutions whose focus is narrow by design. Giving these institutions more authority will not suddenly result in them having a comprehensive approach to problem solving.

Option 2: Establish one or more new regional entities with new powers to respond to today’s pressing problems. This could include establishing a new entity to plan, fund and make choices about development that will be impacted by sea level rise and climate change-related flooding. It could also involve consolidating regional transit operators and establishing a new regionwide system of rail and transbay bus travel. The pro of this approach is that it would result in the design of an agency targeted towards key challenges of today. One con is that it could result in increased fragmentation by creating an additional institution. A second con is that this approach could perpetuate the problem of a single purpose regional entity.

Option 3: Move towards a comprehensive multi-issue regional government entity. This comprehensive approach is what exists in part in Portland and Minneapolis. For example, Portland’s Metro is a directly elected regional government that does long-range planning and even manages the region’s garbage and recycling program. The Twin Cities tax sharing scheme is a part of a comprehensive regional agency that also operates the region’s bus system, collects and treats wastewater, manages regional parks and conducts comprehensive long-range planning. The pro of this approach is its comprehensive approach to challenges. The con is that absent state legislation, the powers of such an entity might be relatively weak and the political opposition strong.

To achieve any of these options will require turning more of our local residents into Bay Area citizens who recognize our shared fate and interests. Regionalism is not all or nothing and can involve incremental changes. But only keeping what we have and assuming it will serve us for the future is no longer a viable option. Our needs are more interconnected now. Our governance should reflect that.

43 See: http://barwmp.org/
FRONT PAGE STATISTICS

Area
Data are from 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 Population and Housing, 1990 Census Population and Housing Small Area Income and Poverty Estimates, 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-4 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 January 2012.

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 which 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. All industries are included in the major areas of economic activity. Figures for Quarter 2 2011, and 2012 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/3Joint Venture Silicon Valley Network data set and are reported for Fiscal Year 2012 (Q2 & Q4 2011; Q1 & Q2 2012) Wages were adjusted for inflation and are reported in first half 2012 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 2012 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, 2010-2012 reported by the California Department of Finance and are for San Mateo and Santa Clara Counties. Estimates for 2012 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 are for Santa Clara and San Mateo Counties and are derived from the United States Census Bureau 2011 American Community Survey 1-year estimates. Data for adult educational attainment are for Santa Clara and San Mateo Counties population 25 years and over derived from the United States Census Bureau 2011 American Community Survey. 1-year estimates. Some College includes Some college less than 1 year of college, Some college, 1 or more years, no degree/Academic degree.

PEOPLE
Talent Flows and Diversity
Population Change and Net Migration Flows
Data are from the E-4 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 January 2012.

Educational Attainment
Data for adult educational attainment are for Santa Clara and San Mateo Counties and are derived from the United States Census Bureau 2011 American Community 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 Others 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
State and national data for 1995-2010 are from the National Center for Education Statistics. Regional data for the Silicon Valley includes the following post-secondary institutions: Merit College, Cogswell Polytechnic College, University of San Francisco, University of California (Berkeley), Stanford University, 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, mathematical sciences, physics, chemistry, and psychology. Data were analyzed based on: (1) major citizenship and level of degree (bachelors, masters or doctorate).

International Talent
Data is from International student data provided by the United States Census Bureau 2000/Decennial Census and 2011 American Community Survey Public Use Microdata Samples (PUMS). The Science & Engineering (S&E) category is comprised of workers in the following occupations: Computer physical engineers, Design, Biological, Mathematics, and Aerospace Engineers & Scientists. Design includes Engineers and Artists & Related Workers. Both were added to the S&E occupations to try to capture the employment in Graphic Designers and Multimedia Artists & Related Workers. Data includes all employed at work individuals in San Mateo and Santa Clara Counties with a bachelor’s degree or higher. Foreign-born does not include individuals from U.S. territories. Science and engineering fields are based on U.S. Census Bureau Standard Occupational Classification system. This classification system was updated in 2010.

ECONOMY
Employment
Change in Residential Employment; Total Employed Residents by Month
Silicon Valley (San Mateo and Santa Clara Counties), California and Santa Clara data are from the Bureau of Labor Statistics Local Area Unemployment Statistics. Data is not seasonally adjusted. December data is preliminary. National employment data is from Bureau of Labor Statistics, Current Population Survey. Data is not seasonally adjusted. Residential employment is measured on a place-of-residence basis and includes the civilian noninstitutional population 16 years of age and older. Employed persons are those that did any work at all for pay or profit in the referring week or worked 15 hours or more without pay in a family business or farm job those not working who had a job from which they were temporarily absent, whether or not paid for such reasons as labor-management disputes, illness, or vacation November and December data are from the State of California Employment Development Department.

Quarterly Job Growth; Silicon Valley Major Areas of Economic Activity
Silicon Valley employment data are provided by the California Employment Development Department and are from the Joint Venture Silicon Valley Network’s unique data set. Data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program which 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. All industries are included in the major areas of economic activity. Figures for Quarter 2 2011 and 2012 are preliminary revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley Fremont, Newark and Union City.

Economic Impact of Hospitals
Santa Clara hospitals economic impact data come from the AHE, Urban & Regional Economics report Economic Impact Analysis, Santa Clara County Hospitals July 2012. Data are for 2010 operations and are reflected in 2011 dollars.

Unemployed Residents’ Share of Working Age Population by Race and Ethnicity
Unemployment data by ethnicity is from the U.S. Census Bureau, American Community Survey. This data counts the number of unemployed persons, as well as estimates the total population in each race by gender for age groups ranging from 16 years of age to 75 years of age and older. Ethnicity breakdowns include: African American, Asian, Some Other Race, Two or More Races, White (Not Hispanic), 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 2011. Data by race and ethnicity is not available for San Mateo County. Total unemployment and working age population figures are broken down by age and do not equal the sum of the racial and ethnic categories displayed. Ethnicities of small local populations (American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander) are not categorized independently by the Census Bureau for Santa Clara County therefore there may be discrepancy between the total unemployment figures and the sum of ethnic and racial categories included in the chart. Additionally, all unemployment figures include a margin of error.

Unemployed Residents’ Share of Working Age Population by Educational Attainment
Unemployment data by ethnicity is from the U.S. Census Bureau 2007-2011 American Community Survey. This data categorizes the number of unemployed persons 25 years and over by highest educational degree received. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters.

Science and Engineering Talent by Category
Data is from Science & Engineering (S&E) talent provided by the United States Census Bureau 2000 Decennial Census and 2011 American Community Survey Public Use Microdata Samples (PUMS). The S&E category is comprised of workers in the following occupations: Computer physical engineers, Design, Biological, Mathematics, and Aerospace Engineers & Scientists. Data is derived from 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. Data includes all employed at work individuals and San Mateo and Santa Clara Counties with a bachelor’s degree or higher. Foreign-born does not include individuals from U.S. territories. Science and engineering fields are based on U.S. Census Bureau Standard Occupational Classification system.

Unemployment Rate

Exports - San Jose MSA
Export data and analysis are from Export Nation 2012 San Jose-Sunnyvale-Santa Clara, CA produced by the Metropolitan Policy Program at Brookings.

Innovation
Value Added per Employee
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 which 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. All industries are included in the major areas of economic activity. Figures for Quarter 2 2011, and 2012 are preliminary revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley Fremont, Newark and Union City.

APPENDIX A
Disconnected Youth
Disconnected youth data are from the U.S. Census Bureau, 2006–2011 American Community Surveys. Disconnected youth are classified as individuals between the ages of 16 and 19 who are not enrolled in school and are either unemployed or not in the labor force. Silicon Valley data includes Santa Clara and San Mateo Counties.

Early Education
Preschool Enrollment
Data for preschool enrollment for San Mateo and Santa Clara Counties, California, and the United States. The data are from the U.S. Census Bureau, 2002–2011 American Community Surveys. The population of children is for children age three to five years old. The age of the population in preschool and nursery schools is from three years and older.

Third Grade English-Language Arts Proficiency by Race/Ethnicity
Data are from the California Department of Education California Education Annual Reports (CESR) Research File for San Mateo and Santa Clara Counties, and Fremont Unified, Newark Unified, New Haven Unified, and Scotts Valley Unified School Districts. The CESR 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 2012 English Language Arts (ELA) were required for students who were enrolled in the grade/school at the time of testing or who had completed courses during the 2011–12 school year including 2011 summer school. The following scores are reported by grade level and content area for each school district: county and the state. % Advanced, % Proficient, % Basic, % Below Basic; and % for 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 above performance standard.

Percent of Students Eligible to Receive Free or Reduced Price School Meals
Free and Reduced Price Meals (FRPM) 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. Silicon Valley includes Santa Clara and San Mateo Counties. Newark Unified, Fremont Unified, New Haven Unified, and Scotts Valley Unified School Districts tiers presented are the start year of the school year (e.g., 2011–12 is shown as 2011). Comprehensive data is available on lobstateducation.com.

Relative Growth in Public and Private School Enrollment
Enrollment data from the California Department of Education. Data on private school enrollment includes schools with enrollment of six or more students. Silicon Valley includes Santa Clara and San Mateo Counties.

Arts & Culture
Economic Impact of Arts & Culture Industry Spending: In-Kind Contributions per Capita to Nonprofit Arts & Culture Organizations; Volunteers in Arts & Culture Industry
Arts & Culture industry data includes the American Arts & Culture Industry Project by National Statistical Report services for fiscal year 2005, and recent year for fiscal year 2010 data. Regional data available in Appendix B detailed data tables. Simplified regional areas have been used for Pima County (Tucson), City of Chicago (Chicago), Miami-Dade County (Miami), Wake County (Raleigh), Allegheny County (Pittsburgh), City and County of Philadelphia (Philadelphia), City of Austin (Austin), and Greater Portland (Portland). Fiscal year 2005 data inflation-adjusted and reported in 2010 dollars, using consumer price index for the U.S. city average from the Bureau of Labor Statistics. Data for Silicon Valley is only available for Silicon Valley.

Event Attendance
Professional sports event information was obtained from Baseball Reference, Tennis Panorama News, AnserSports, The Sports Network, and Soccer America Daily. San Jose SaberCats data is from 2011. Collegiate sports information was for Stanford, Santa Clara, and San Jose State University. Data received from Total Football Stats, Go Stanford, Santa Clara Broncos, and San Jose State Spartans.

Quality of Life
Kindergarten Immunizations
Data for kindergarten immunizations comes from the kindergarten assessment, which measures compliance with the school immunization law conducted in all schools with kindergarten Immunitations required by law include All required immunizations include 5 doses of DTP/Hib/HBV, 3 doses of polio vaccine (3 doses meets the requirement if at least one was given on or before the fourth birthday), 1 dose of IPV, 1 dose of hepatitis b vaccine (may be given separately or combined with diphtheria), 2 doses of HIB, 1 dose of varicella vaccine (or physician documented chickenpox disease history or immunity). In the 31-school 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 information for comparison.

Percent of Population with Health Insurance
Data for those with health insurance are from the U.S. Census Bureau 2011 American Community Survey. Data includes Santa Clara and San Mateo Counties.

Infant Mortality Rate
Data are provided by the California Department of Health, Center for Health Statistics, Health Information and Strategic Planning. 1994–2010 Silicon Valley estimates are for San Mateo and Santa Clara Counties.

Percentage of Student Population that is Overweight or Obese
Data for overweight and obese students are from the UCLA Center for Health Policy Research Analysis of California Physical Fitness Test Data. 2005–2010; Overweight is defined as having a BMI between the 85th and 95th percentile on the 2000 Centers for Disease Control and Prevention sex-specific BMI-for-age growth charts, while obesity is defined as having a BMI above the 95th percentile. The California Physical Fitness Test examines public school students in grades 5, 7, and 9. Please refer to the publication “A Patchwork of Progress: Changes in Overweight and Obesity Among California Fifth, Seventh, and Ninth Graders 2005–2009” for methodology information. Comprehensive data is available on lobstateducation.com.

Percentage of Adult Population that is Overweight or Obese
Data for adult overweight and obesity is provided by the UCLA Center for Health Policy Research through the California Health Interview Survey (CHIS). 2007–2009 CHIS calculates adult rates for individuals ages 18 and over. The variable is created using Body Mass Index, with BMI ≥ 25.0 - < 30.0 (Overweight) and BMI ≥ 30.0 (Obese).

Age of Silicon Valley Caregivers: Work Status of Caregivers
Data is provided by the UCLA Center for Health Policy Research through the California Health Interview Survey (CHIS). 2011 CHIS asked adult respondents “During the past 12 months, did you provide any such help to a family member or friend (who has a long-term illness or disability)?”

Safety
Child Abuse
Child maltreatment data are from the California Children’s Services Archive, OVC/UC/ 2012 Quarter 1 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 (1998–2011) calculations based on 2000 and 2010 Census data. Child and Family Services staffing data for Santa Clara County are from Santa Clara County yearly budget reports located on the Santa Clara County Public Portal San Mateo County data are from San Mateo County Human Service Agency.

Felony Offenses
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.

Adult Drug & Alcohol Rehabilitation Clients; Juvenile Drug & Alcohol Rehabilitation Clients
Drug abuse data are from the FBI’s Uniform Crime Reports, as reported by the California Department of Justice in their annual “Criminal Justice Profiles.” 2011 data is not available. 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 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.

Assault Cases
Assault data are from the California Department of Public Health, EpisCenter California Injury Data Online. Assault cases are broken down by “cut/pierce,” “fight, unarmed,” firearm,” and “other” cases that result in death, non-fatal hospitalization and non-fatal emergency department visit (small, no release, or transfer to another facility). Female and male population data used by the Department of Public Health are from the California Department of Finance Demographic Research Unit’s “Estimates of Race/Ethnic Population with Age and Gender Detail” data sets for 1970–1990 and 2000–2010.

PLACE
Environment
Waste Disposal per Capita
Data are provided by the California Department of Resources Recycling and Recovery Local Government Central - Disposal Reporting System (DRRS). Disposal Disposition and Alternative Daily Cover (ADCO) Tons by Facility. This report provides annual estimates of the disposal amounts for jurisdictions in California as reported by County/Regional Agency disposal reporting coordinators. Silicon Valley includes Santa Clara and San Mateo Counties. The daily estimates are calculated according to a 365 day calendar. California population estimates come from The California Department of Finance’s "E-4 Historical Population Estimates for Cities, Counties, and the State" 2001–2010, with 2000 and 2010 Census Counts and "E-3 California Population Estimates and Components of Change by Year (1980-2010)."

Electricity Productivity and Electricity Consumption per Capita
Electricity Consumption data is from the California Energy Commission. Gross Domestic Product (GDP) data is from Moody's Economy.com. GDP values are inflation adjusted and reported in first half 2012 dollars, using the consumer price index for the U.S. city average from the Bureau of Labor Statistics. Data for Silicon Valley includes Santa Clara and San Mateo Counties.

Solar Installations by Sector
Data on the Solar Installation by Sector from The California Solar Initiative (CSI) as a part of the Go Solar California campaign. The Palo Alto Municipal Utilities as part of the Photosolids Partners Program and from Silicon Valley Power. The CSI data shows calculated CEC RETC rating, a measure of alternating current output of photovoltaic system under PVUSA Test Conditions as calculated by PowerWatch. The Palo Alto and Silicon Valley power data is the capacity by installation year, measured in alternating current kilowatts.

Time Required for Permitting of Renewable Energy Installations
Data are from the Joint Venture: Silicon Valley Network of Survey Cities. In recent years, residents and cities have been 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 portions of the surveyed sites and its residents. In boos and whaler charts the blue line represents the range for which the middle 50 percent of the responses fell. The vertical black line in the blue box represents the median (middle) value of the data set. The left-hand whisker represents the range for the lower 25 percent of the data, and the right-hand whisker represents the range for the upper 25 percent of the data.
Transportation

Vehicle Miles of Travel per Capita and 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 Stool, Travel, and Fuel Forecast” (VVT, Data for 2008-2011 is from the California Department of Transportation’s Highway Performance Monitoring System “California Public RoadData”). Data includes annual statewide total VMT on State highways and non-state highways. In order to calculate VMT, Caltrans multiplies the roadway section length (length in miles along the centerline of the roadway) by Average Annual Daily Traffic (AADT). AADTT are actual traffic counts that the county or state have taken and reported to the California Department of Transportation. To compute per-capita values, Revised County Population Estimates, 1990-2010 with 1990-2000, and 2010 census counts from the California Department of Finance were used. Gas prices are average annual real gas prices for California, and come from the Weekly Retail Gasoline and Diesel Prices (Cents per Gallon, including taxes) data series 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 2012 dollars using the U.S. city average consumer price index of all urban consumers, published by the Bureau of Labor Statistics.

Means of Commute

Data on the means of commute to work are from the United States Census Bureau 2003 and 2011 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 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 longer distance during the week. The categories “Drive Alone” and “Carpool” include workers using a car (including company cars but excluding taxis), 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 or subway or elevated rail, ferryboat, or train. In each mode is not shown separately in the calculation. The categories “Other” include taxis, motorcycle, bicycle, walking, working from home 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 Sam Trans/Voluntary Transportation Authority Altamont Commuter Express, and Caltrain. The California Department of Finance’s “U.S. Historical Population Estimates for Cities, Counties and the State, 2000-2010” with 2000 and 2010 Census Count and “U.S. California County Population Estimates and Components of Change by Year (July 1, 2010-2012)” were used to compute per-capita values.

Commute Patterns

Data for Commute Patterns provided by the United States Census Bureau 2011 American Community Survey Public Microdata Samples (PUMS). Data includes the Place of Work PUMa for San Francisco, San Mateo, and Santa Clara Counties.

Land Use

Residential Density

Joint Venture: Silicon Valley Network conducted a land-use survey of all cities within Silicon Valley Collaborative Economies completed the survey compilation and analysis. Participating cities include: Atherton, Belmont, Brisbane, Burlingame, Campbell, Cupertino, Foster City, Gilroy, Hillbrook, Los Altos, Los Altos Hills, Millbrae, Millbrae, Morgan Hill Mountain View, Newark, Palo Alto, Portola Valley, Redwood City San Bruno, San Carlos, San Jose, Santa Clara, Saratoga, San Francisco, Sunnyvale, Santa Clara is also included. In 2008, the survey was expanded to include more cities along the 101 corridor (Belmont, Brisbane, Burlingame, Millbrae, Milpitas, San Bruno, and South San Francisco). Most recent data are for fiscal year 2012 (July 1–June 12). 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 Near Transit; 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-third mile of transit are reported directly for each of the cities and counties participating in the survey. Places with one-third mile of transit are considered “walkable” (i.e. within a 3- to 10-minute walk for the average person). Transit oriented data prior to 2012 is reported in one-quarter mile of transit.

Housing

Building Affordable Housing

Data are from Joint Venture: 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 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.

Home Affordability

Data are from the California Association of Realtors’ (CAR) First-Time Buyer Housing Affordability Index, which measures the percentage of households that can afford to purchase an entry-level home in California. The data for Silicon Valley includes Santa Clara and San Mateo Counties and are based on the median price of a single-family home sold from CAR’s monthly existing home sales survey. 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 Volume and Volume of Existing single Family Data warehousing Vintage. Data for the CAR’s First-Time Buyer Housing Affordability Index are provided by RAND California Statistics sourced by DataQuick News.

Percent of Households with Housing Costs Greater than 35% of Income

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.

Housing Starts

Housing starts data are from the Construction Industry Research Board as reported by the California Building Industry Association. Data are for the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area and are for single-family and multi-family homes. 2011 data are through November.

Trends in Home Sales

Data are 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. Sale price are inflation-adjusted and reported in first half year 2012 dollars using the U.S. city average consumer price index of all urban consumers published by the Bureau of Labor Statistics. Data is for Santa Clara and San Mateo Counties. Fremont, Newark, Union City and South Valley

Residential Foreclosure Activity

Data were compiled by RAND California on behalf of DataQuick News. Data reflects total foreclosures for townhomes, single-family and multi-family homes. The foreclosure numbers are strictly recorded Trustee’s Deeds, or when the property is actually taken back by the lender. The foreclosure numbers are based on foreclosures from Freddie Mac’s Primary Mortgage Market Survey Quarterly Volume and Volume of Existing single Family Data warehousing Vintage. Data for the CAR’s First-Time Buyer Housing Affordability Index are provided by RAND California Statistics sourced by DataQuick News.

Underwater Mortgages

Negative equity, otherwise referred to as an underwater mortgage is when the market value of a home exceeds the amount due on the mortgage. Underwater mortgage rates are provided by Zillow Real Estate Research. Negative Equity Report. Data is unavailable prior to 2011. The regional Silicon Valley mortgage rates were calculated using the Joint Venture zip code-based definition of Silicon Valley. City rankings were calculated using the following cities: Atherton, Belmont, Brisbane, Burlingame, Campbell, Cupertino, Daly City, Foster City, Fremont, Gilroy, Half Moon Bay, La Honda, Lexington Hills, Los Altos, Los Gatos, Menlo Park, Milpitas, Montara, Morgan Hill, Mountain View, Newark, Portola Valley, Redwood City, San Bruno, San Carlos, San Gregorio, San Jose, San Martin, San Mateo, Santa Clara, Saratoga, South San Francisco, Sunnyvale, Union City.

GOVERNANCE

City Revenue

Data provided by the California State Controller’s Office. Cities Annual Report Revenue Adjustments is for inflation, and reported in first half of 2011 dollars using the U.S. city average consumer price index 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 includes revenue sources such as revenue of use of money and property, sale of real and personal property, and intergovernmental transfers.
### Silicon Valley Major Areas of Economic Activity

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Employment</strong></td>
<td>1,367,509</td>
<td>100.0%</td>
<td>-1.9%</td>
<td>4.2%</td>
</tr>
<tr>
<td><strong>Community Infrastructure</strong></td>
<td>782,583</td>
<td>57.2%</td>
<td>-1.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Health &amp; Social Services</td>
<td>134,639</td>
<td>9.8%</td>
<td>-10.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Health Care &amp; Social Services</td>
<td>129,755</td>
<td>9.5%</td>
<td>-5.3%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Education</td>
<td>113,317</td>
<td>8.3%</td>
<td>-2.9%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Construction</td>
<td>102,431</td>
<td>7.4%</td>
<td>-9.0%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Consumer Services</td>
<td>41,454</td>
<td>3.0%</td>
<td>-5.2%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>33,621</td>
<td>2.5%</td>
<td>-11.1%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Professional, Scientific, &amp; Tech</td>
<td>27,450</td>
<td>2.0%</td>
<td>-0.9%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Federal Government Administration</td>
<td>23,802</td>
<td>1.7%</td>
<td>-8.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Other</td>
<td>22,894</td>
<td>1.7%</td>
<td>119.5%</td>
<td>13.6%</td>
</tr>
<tr>
<td><strong>Information Products &amp; Services</strong></td>
<td>302,459</td>
<td>22.1%</td>
<td>6.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Software</td>
<td>101,376</td>
<td>7.4%</td>
<td>17.2%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Computer Hardware</td>
<td>42,571</td>
<td>3.1%</td>
<td>10.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Semiconductor &amp; Semiconductor Equipment Manufacturing</td>
<td>39,309</td>
<td>2.9%</td>
<td>10.0%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Internet &amp; Information Services</td>
<td>31,201</td>
<td>2.3%</td>
<td>43.2%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Communications Services &amp; Equipment Manufacturing</td>
<td>20,533</td>
<td>1.5%</td>
<td>7.4%</td>
<td>1.8%</td>
</tr>
<tr>
<td>LT-Wholesale Trade</td>
<td>19,783</td>
<td>1.4%</td>
<td>-11.4%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Instrument Manufacturing</td>
<td>17,457</td>
<td>1.3%</td>
<td>-20.1%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Other Media &amp; Broadcasting</td>
<td>4,686</td>
<td>0.3%</td>
<td>21.0%</td>
<td>-4.7%</td>
</tr>
<tr>
<td>LT Repair Services</td>
<td>2,020</td>
<td>0.1%</td>
<td>6.0%</td>
<td>-15.9%</td>
</tr>
<tr>
<td><strong>Innovation &amp; Specialized Services</strong></td>
<td>156,537</td>
<td>11.4%</td>
<td>3.3%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Technical &amp; R&amp;D</td>
<td>54,182</td>
<td>4.0%</td>
<td>9.2%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Personnel</td>
<td>31,706</td>
<td>2.3%</td>
<td>1.7%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Management Office</td>
<td>19,622</td>
<td>1.4%</td>
<td>-20.9%</td>
<td>-24.0%</td>
</tr>
<tr>
<td>Specialized Financial Services</td>
<td>22,119</td>
<td>1.6%</td>
<td>0.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Legal</td>
<td>10,170</td>
<td>0.7%</td>
<td>-10.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Management Services</td>
<td>8,485</td>
<td>0.6%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Marketing/Ad/PR</td>
<td>6,617</td>
<td>0.5%</td>
<td>2.0%</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Design</td>
<td>3,936</td>
<td>0.3%</td>
<td>-26.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td><strong>Business Infrastructure</strong></td>
<td>59,642</td>
<td>4.4%</td>
<td>-6.9%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Facilities</td>
<td>38,742</td>
<td>2.8%</td>
<td>-2.7%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>20,900</td>
<td>1.5%</td>
<td>-13.8%</td>
<td>10.2%</td>
</tr>
<tr>
<td><strong>Other Manufacturing</strong></td>
<td>45,204</td>
<td>3.3%</td>
<td>-31.6%</td>
<td>-4.9%</td>
</tr>
<tr>
<td>Other Primary &amp; Fabricated Metal Manufacturing</td>
<td>40,040</td>
<td>3.0%</td>
<td>-17.2%</td>
<td>-10.2%</td>
</tr>
<tr>
<td>Oil</td>
<td>22,894</td>
<td>1.7%</td>
<td>-119.5%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Other Machinary &amp; Equipment/Motor Manufacturing</td>
<td>13,894</td>
<td>1.0%</td>
<td>-34.6%</td>
<td>-3.9%</td>
</tr>
<tr>
<td>Other Manufacturing Services</td>
<td>7,575</td>
<td>0.5%</td>
<td>-33.9%</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Textile, Wood, &amp; Furniture Manuf.</td>
<td>3,861</td>
<td>0.3%</td>
<td>-25.1%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Other Miscellaneous Manufacturing</td>
<td>3,372</td>
<td>0.2%</td>
<td>-15.1%</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Life Sciences</strong></td>
<td>21,084</td>
<td>1.5%</td>
<td>36.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>10,208</td>
<td>0.7%</td>
<td>7.7%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*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 Association of Realtors
- California Department of Education
- California Department of Finance
- California Department of Justice
- California Department of Public Health
- California Department of Resources Recycling and Recovery
- California Department of Social Services
- California Department of Transportation
- California Employment Development Department
- California Energy Commission
- California Health Interview Survey
- California Public Utilities Commission
- California State Controller’s Office
- Caltrain
- CB Insights
- Cities of Silicon Valley
- City Planning and Housing Departments of Silicon Valley
- Colliers International
- Construction Industry Research Board
- Energy Information Administration
- Factset Mergerstat LLC
- Federal Financial Institutions Examination Council (FFIEC)
- Integrated Postsecondary Education Study Data System
- Kauffman Index
- Moody’s Economy.com
- National Center for Educational Statistics
- National Establishment Time-Series (NETS) Database
- Optony Inc.
- Palo Alto Municipal Utilities
- PricewaterhouseCoopers MoneyTree™
- RAND California Statistics
- Real Facts
- Renaissance Capital’s IPHome.com
- SamTrans
- San Mateo County Human Services Agency
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- Silicon Valley Power
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- U.C. Berkeley Center for Social Services Research
- U.S. Bureau of Labor Statistics
- U.S. Census Bureau
- U.S. Department of Agriculture
- U.S. Patent and Trade Office
- U.S. Small Business Administration
- UCLA Center for Health Policy Research
- Valley Transportation Authority
- Zillow Real Estate Research

JOINT VENTURE SILICON VALLEY

Established in 1993, Joint Venture Silicon Valley 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.

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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.
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NextG Networks
Notre Dame de Namur University
O’Connor Hospital
Oakland Athletics
Open Space Authority
Optonix
Oracle
Orrick, Herrington & Sutcliffe LLP
Pacific Gas & Electric Company
Packard Foundation
Pipe Trades Training Center of Santa Clara County
PRX Digital
Robert Half International
San Francisco 49ers
San Jose Sharks
San Jose/Silicon Valley Business Journal
Santa Clara County Office of Education
Santa Clara University
Santa Clara VTA
Santa Clara Valley Water District
SensiSys San Filippo
Silicon Valley Community Foundation
Silicon Valley Power
Skoll Foundation
Soroptimist Development Companies
Solarica
SolutionSet
South Bay Piping
Stanford University
Studley
Summerhill Land
Sun Microsystems
SunPower Corporation
SVB Financial Group
Synopsys
TDA Group
Tech CU
Therma
T-Mobile
UPS
University of California, Santa Cruz
University of Phoenix
Varian Medical Systems
VMware
Voiterra
Well Gotshal & Manges
Wells Fargo Bank
Wilmer Hale, LLP
Wilson Sonsini Goodrich & Rosati, LLP
VMware
Volkswagen Group of America
Zanker Recycling/GreenWaste

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City of Brisbane
City of Burlingame
City of Campbell
City of Colma
City of Cupertino
City of Daly City
City of East Palo Alto
City of Foster City
City of Fremont
City of Gilroy
City of Half Moon Bay
City of Los Altos
City of Menlo Park
City of Milpitas
City of Monte Sereno
City of Morgan Hill
City of Mountain View
City of Newark
City of Pacifica
City of Palo Alto
City of Redwood City
City of San Bruno
City of San Carlos
City of San Jose
City of San Mateo
City of Santa Clara
City of Santa Cruz
City of Saratoga
City of South San Francisco
City of Sunnyvale
City of Union City
City of Watsonville
County of Alameda
County of San Mateo
County of Santa Clara
County of Santa Cruz
Town of Atherton
Town of Portola Valley
Town of Los Altos Hills
Town of Los Gatos
Town of Woodside

SILICON VALLEY COMMUNITY FOUNDATION
2440 West El Camino Real, Suite 300
Mountain View, California 94040-1498
ph: 650 450-5400  f: 650 450-5401
e-mail: info@siliconvalleycf.org
www.siliconvalleycf.org

JOINT VENTURE SILICON VALLEY
100 W. San Fernando Street, Suite 310
San Jose, CA 95113
ph: 408 298-9330  f: 408 404-0865
e-mail: info@jointventure.org
www.jointventure.org