A stylized illustration of a microscope in shades of grey and blue. The lens is positioned at the bottom of the frame and contains a yellow map of Solano County with the word "Solano" written across it. The background is a solid yellow color, flanked by vertical blue bars on the left and right sides.

# Solano County's Life Science Cluster Workshop

February 2009

Prepared by Collaborative Economics

# LIFE SCIENCES IN SOLANO COUNTY

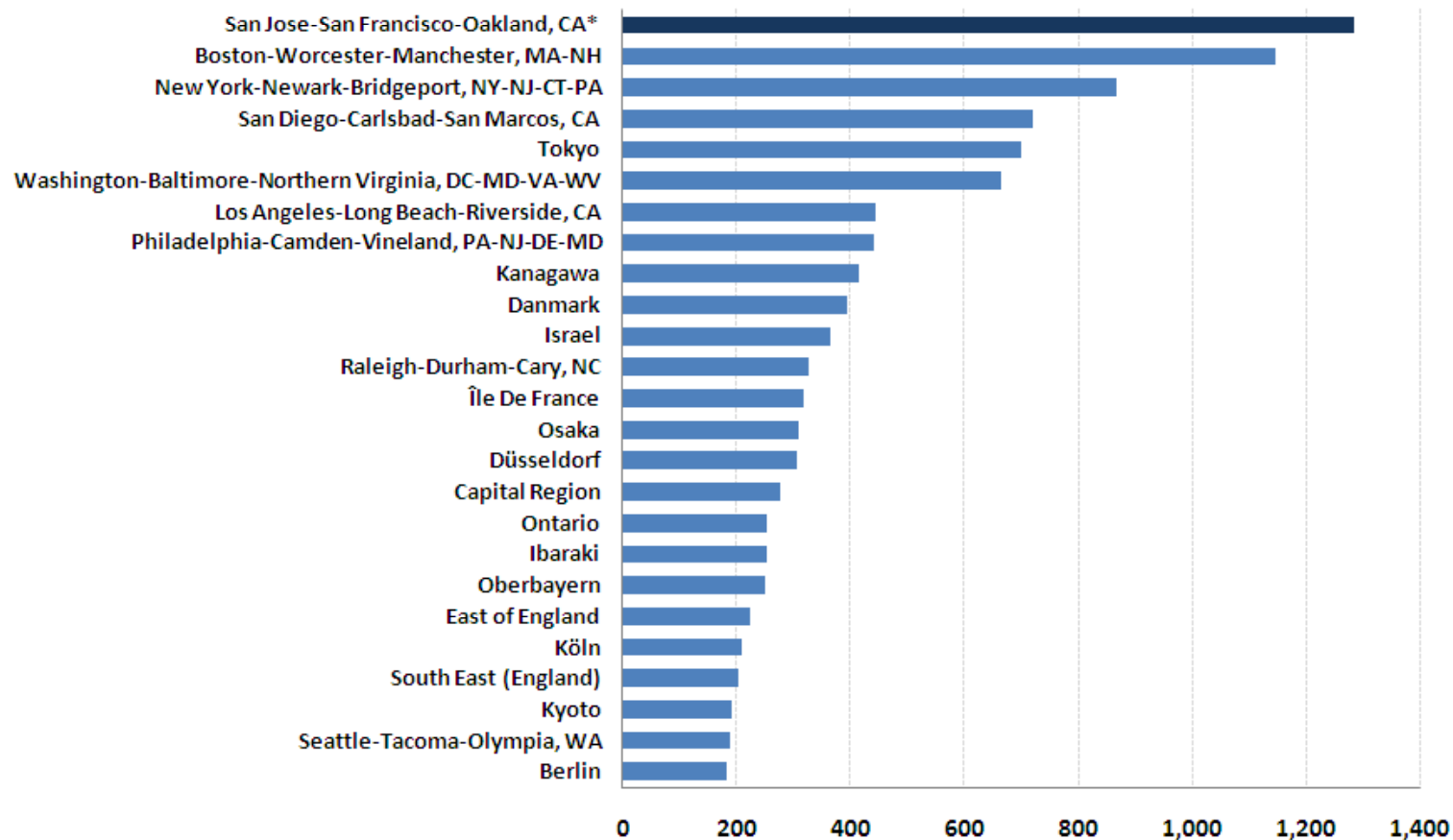
## THE FINDINGS ARE:

- **Innovation is taking place in Solano**
- **Life Science is growing in Solano County**
- **Earnings in Life Science are growing**
- **Residents make up bulk of jobs in Life Sciences**
- **Training options are developing**
- **What can Solano County do to support the continued growth of Life Science in the county?**

# SAN FRANCISCO BAY AREA IS GLOBAL LEADER IN BIOTECHNOLOGY PATENTS

## Top 25 Regions<sup>1</sup> in Biotechnology Patents

Number of Biotechnology Patents Applications filed under the Patent Co-Operation Treaty  
2003-2005



Source: OECD, Patent Database, June 2008; EPO Worldwide Statistical Patent Database, October 2007.

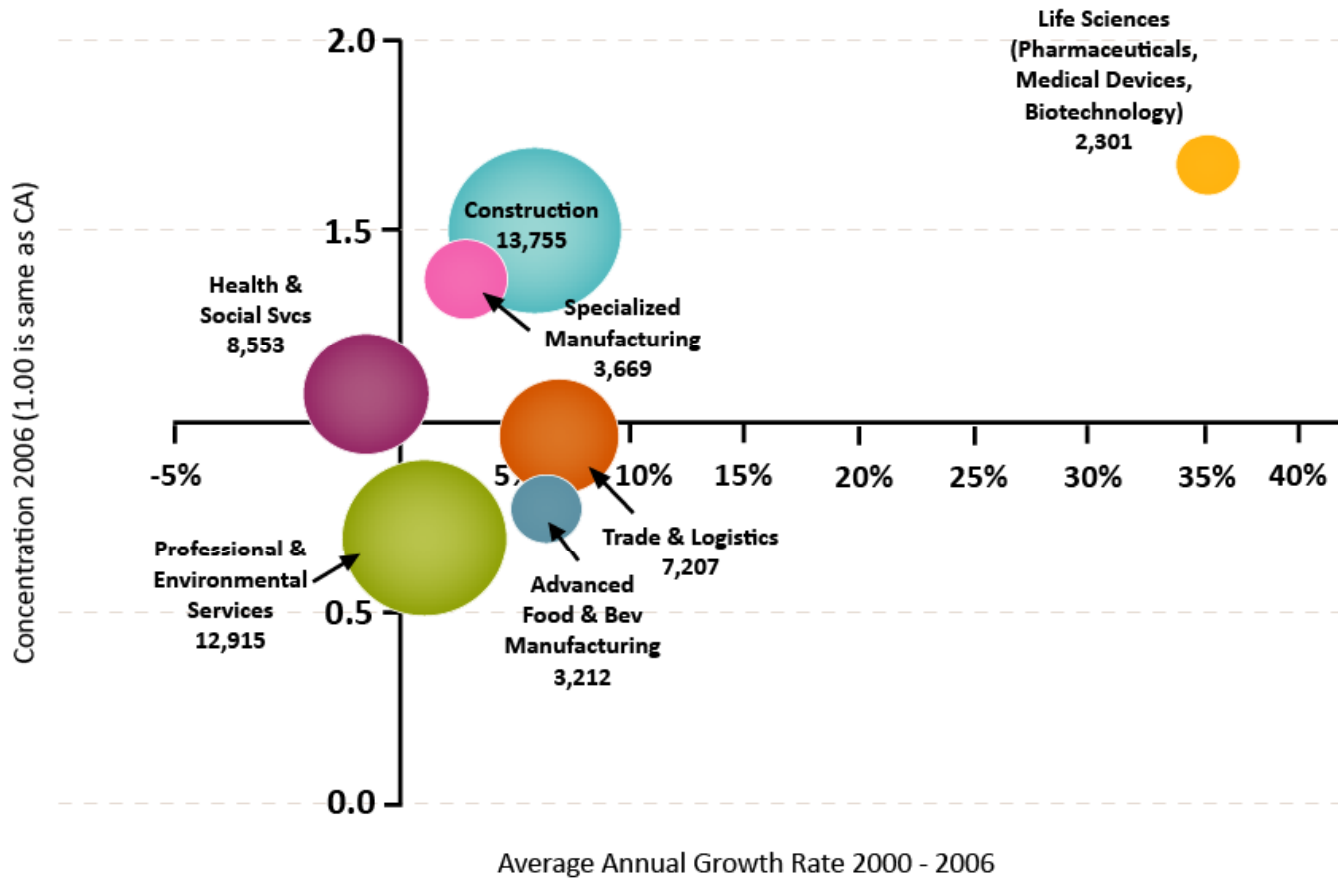
\*San Jose-San Francisco-Oakland, CA includes Solano County.

Note: Patent counts are based on the priority date, the inventor's country of residence and use fractional counts on PCT filings at international phase (EPO designations).

<sup>1</sup>The regional breakdown is presented at NUTS 2 level, except for Japan (NUTS 3), the United Kingdom (NUTS 1) and the United States (TL 3). In this breakdown, smaller countries such as Denmark and Israel are treated as regions.

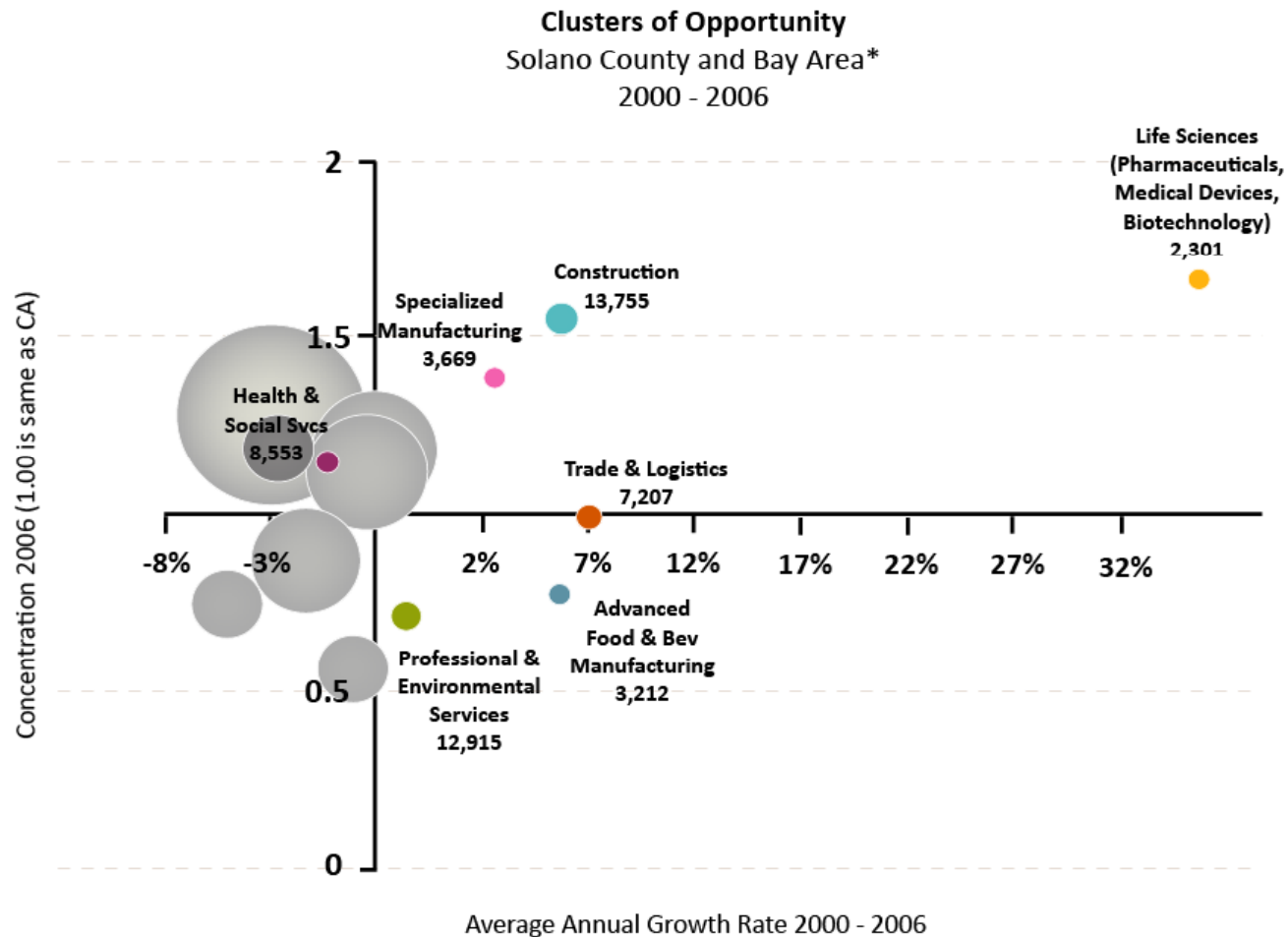
# LIFE SCIENCES IN SOLANO COUNTY IS GROWING RAPIDLY

**Clusters of Opportunity**  
Solano County  
2000 - 2006



Size of bubble represents employment size in 2006.

# SOLANO'S CLUSTERS OUTPERFORMING THE REST OF THE BAY AREA



Size of bubble represents employment size in 2006.

\*Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and Sonoma Counties

# INNOVATION IN SOLANO

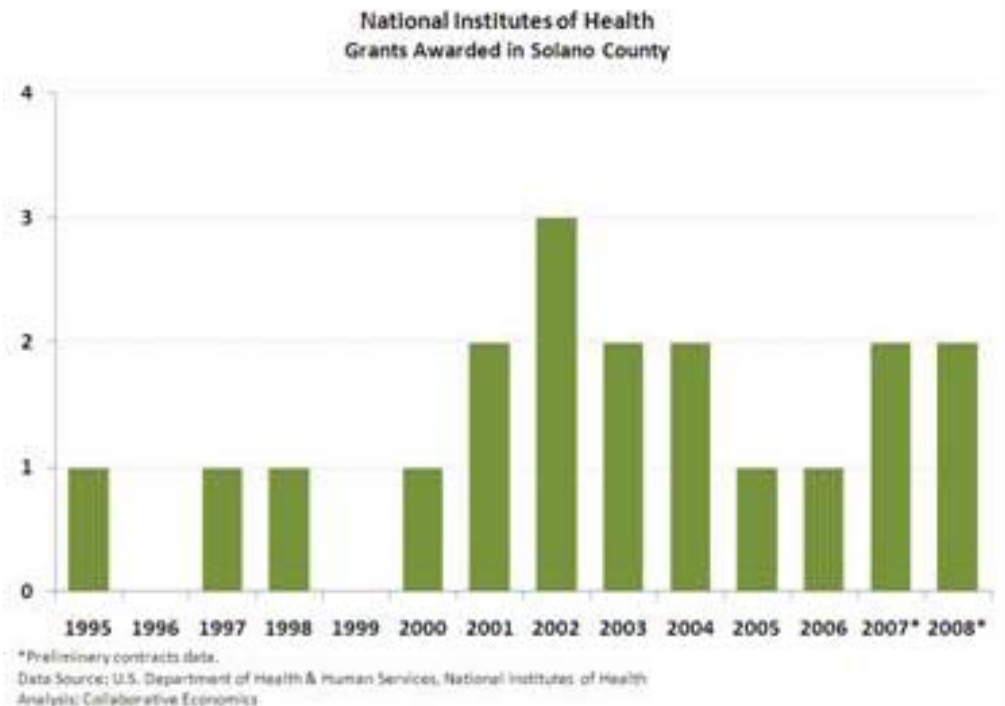
## SOLANO'S INNOVATION ASSETS INCLUDE:

- Three research universities in close proximity: U.C. Davis, U.C. Berkeley and Touro University
- Rising number of NIH grants:

**6 grants 1995-2001**

**13 grants 2002-2008**

**U.C. Davis ranks 12<sup>th</sup> in nation among public universities for total research funding.**

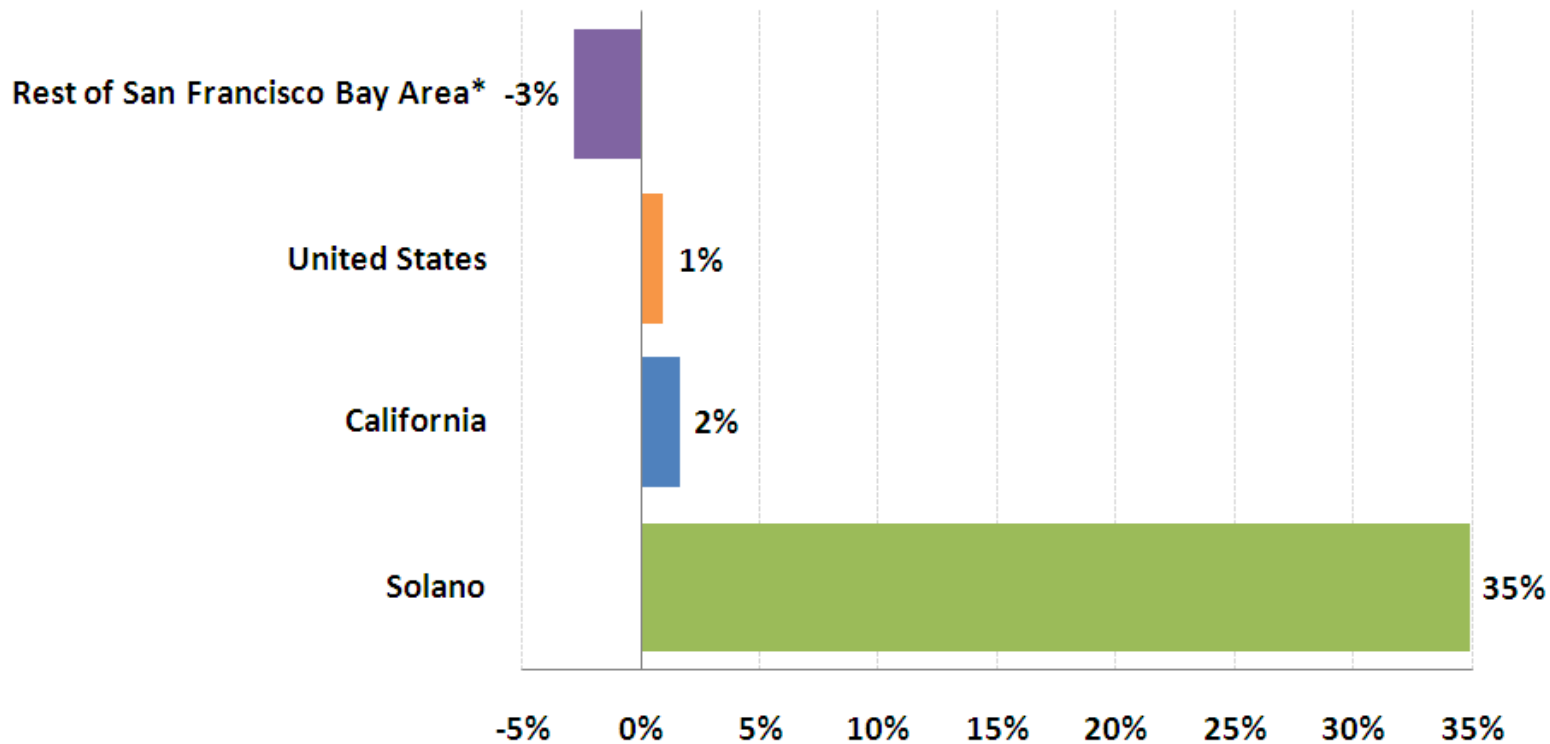


# LIFE SCIENCE IS GROWING

## Life Sciences Cluster

### Annual Average Growth Rate of Employment

Solano County, Rest of the San Francisco Bay Area, California, and the United States  
2000-2006



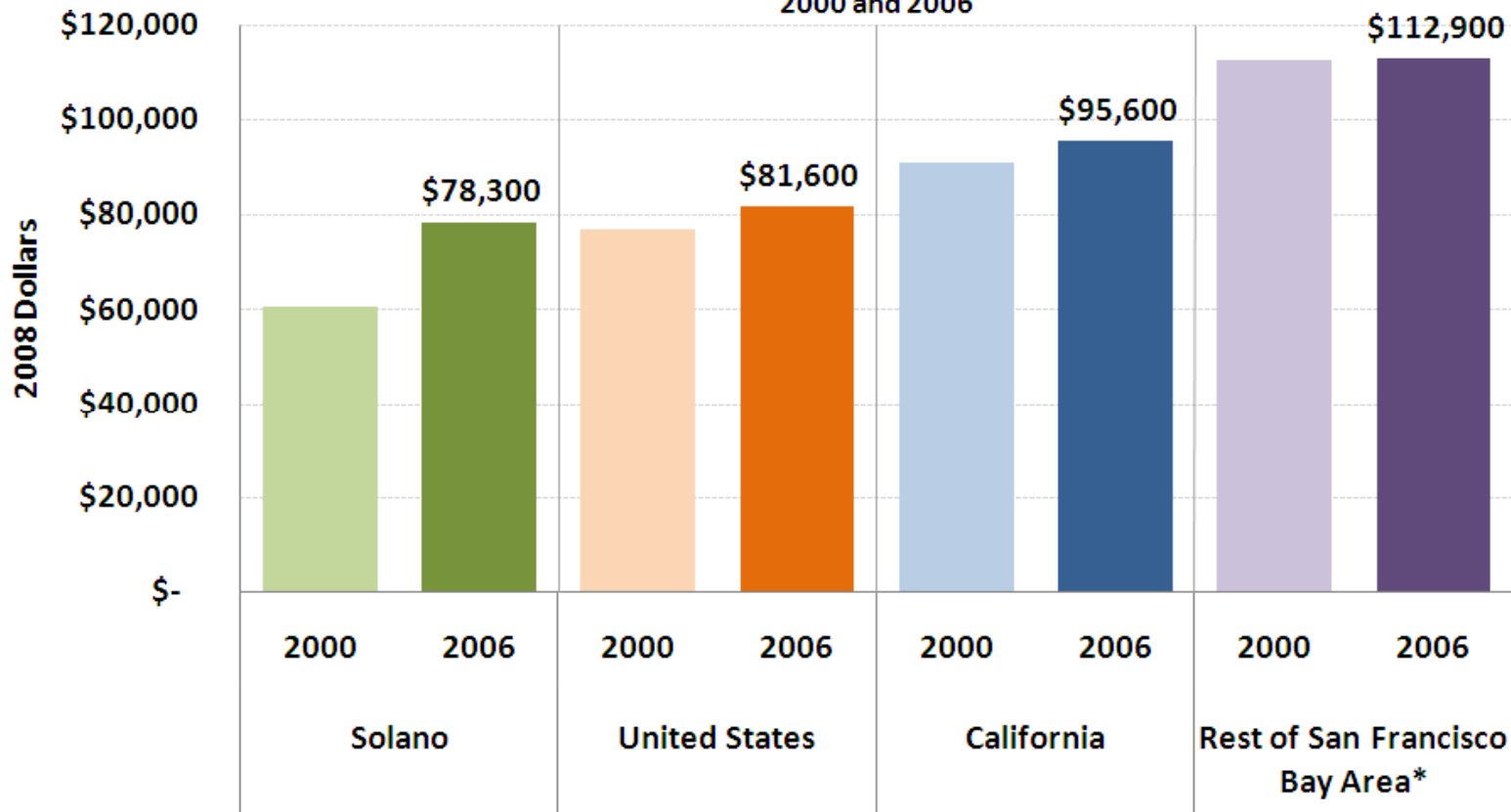
Data Source: California Employment Development Department, Quarterly Census of Employment and Wages

Analysis: Collaborative Economics

\*Rest of San Francisco Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and Sonoma.

# EARNINGS ARE GROWING FASTER IN SOLANO THAN OTHER PLACES

Annual Average Wage in Life Science Cluster  
Solano County, Rest of the San Francisco Bay Area, California, and the United States  
2000 and 2006



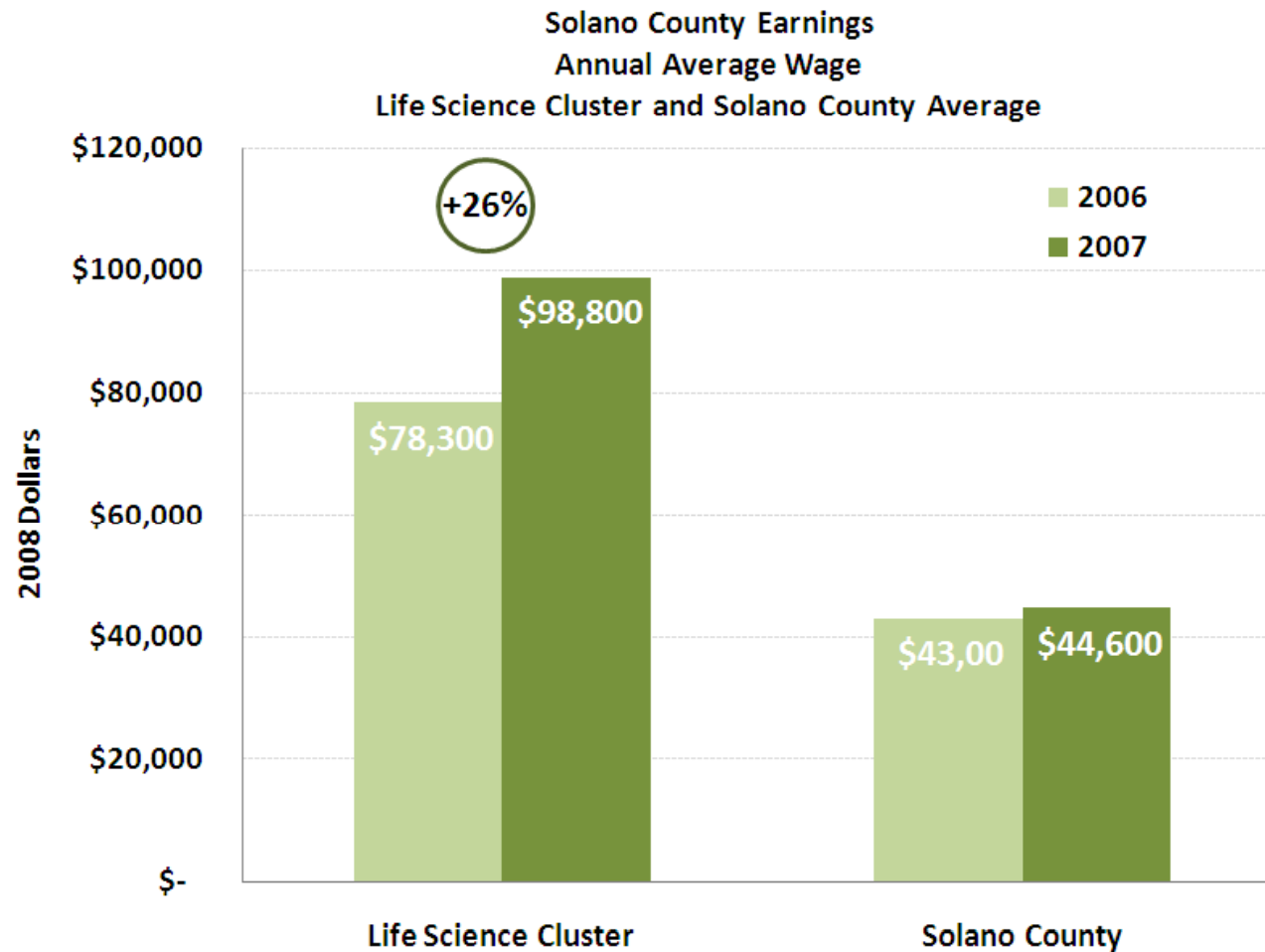
Note - Annual average wages are rounded to nearest 100s.

Data Source: California Employment Development Department, Quarterly Census of Employment and Wages

Analysis: Collaborative Economics

\*Rest of San Francisco Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and Sonoma.

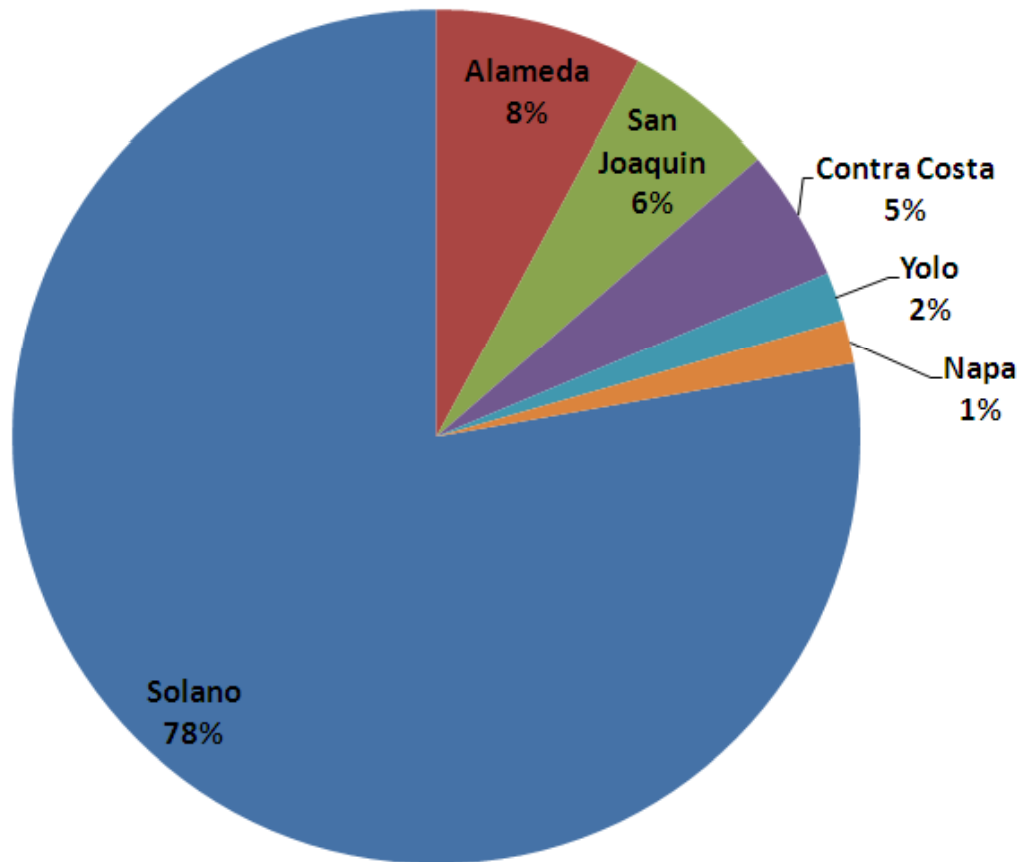
# ...AND FASTER THAN IN OTHER INDUSTRIES



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

# RESIDENTS FILL BULK OF JOBS

Commute Flows of Life Science Employees  
By County of Residence  
2007

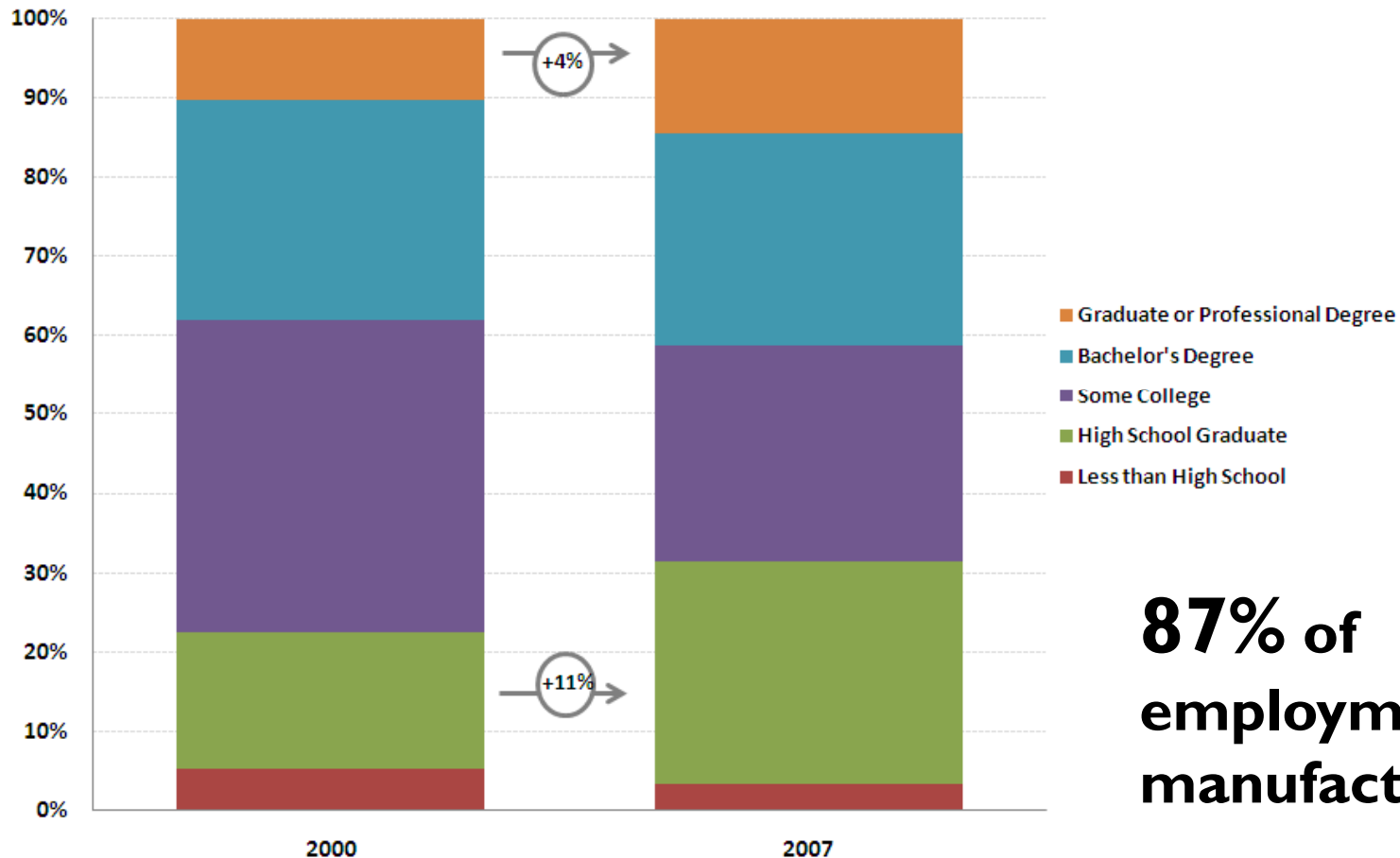


**78% of Life Science Jobs are filled by Solano County residents.**

# ...AND AT BOTH ENDS OF THE SKILLS SPECTRUM

Educational Attainment of Life Science Cluster Employees

Solano County  
2000 and 2007



**87% of  
employment is in  
manufacturing**

# TRAINING OPTIONS ARE DEVELOPING

No academic discipline is more important to the continued success of the Life Science industry than **science education.**

## Training Programs in Solano:

- Biotech Academy
- Solano Community College
- University of California at Davis
- University of California at Berkeley
- Touro University

# SUPPORTING THE LIFE SCIENCE CLUSTER

## **THERE ARE THINGS THE COUNTY CAN DO:**

- **Provide appropriate R&D and manufacturing space.**
- **Provide required infrastructure particularly related to water supply and management.**
- **Consider how local tax policies could support the continued growth of life science companies.**
- **Develop relationships with local research universities and local industry to spur innovation and business start-ups in the county.**
- **Further develop promising training opportunities in the county such as the biotech academy and others.**

**Website**

**[WWW.SOLANOCOUNTY.COM/LIFESCIENCECLUSTER](http://WWW.SOLANOCOUNTY.COM/LIFESCIENCECLUSTER)**

A stylized illustration of a microscope in shades of grey and blue, set against a yellow background. The microscope's lens is focused on a slide that features the Solano County logo, which includes a yellow bear silhouette and the word "Solano" in blue. The entire scene is framed by dark blue vertical bars on the left and right sides.

# Solano County's Life Sciences Cluster Workshop

February 2009

Prepared by Collaborative Economics