

nexteconomy
CAPITAL REGION PROSPERITY PLAN

Research Report

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Key Findings

- Next Economy is a broad-based public-private partnership effort to create effective strategies and joint actions to drive new job creation, investment, and innovation in the six-county Sacramento Region (El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties).
- The Sacramento Region was home to more than 2.3 million people in 2011. Over the past 10 years, the Region's population increased by around 18 percent or over 350,000 people. The Region accounts for about 6 percent of the state's total population.
- Over the past decade, the Sacramento Region's unemployment rate has tracked below the statewide average, but this dynamic shifted in 2007 as the recession began to take hold. In 2011, the Region posted an unemployment rate over 12 percent, accounting for over 135,000 residents officially considered unemployed.
- Private and public sector establishments in the Sacramento Region supported nearly 858,000 jobs on payrolls as of December 2011, which is about 6 percent of all jobs in the state. This total employment level is about 110,000 below the recent peak in the summer of 2007 and tracks close to levels supported back in 2000 and 2001.
- Annual job growth in the Sacramento Region outpaced the state for most of the early 2000s. Since the beginning of the recession, the Region's job growth has, for the most part, fallen below the statewide average. The Region hit a low point in the summer of 2009 with a rate of loss close to 7 percent and only moved back into positive job growth territory in late 2011.
- Twenty-nine percent of the roughly 877,000 payroll jobs in the Sacramento Region in 2010 were in the Government sector. The largest private sector activities included Retail Trade; Health Care & Social Assistance; Accommodation & Food Services; and Professional, Scientific, & Technical Services, capturing between 6 and 11 percent of all jobs in the Region.
- Total economic output in the Sacramento Region topped \$97 billion in 2010, equating to about 6 percent of the state's total output. The Government sector accounted for the greatest share of output in the Sacramento Region's economy based on the equivalent market value of goods and services provided. Other notable contributors to regional output included the Real Estate, Rental, & Leasing; Professional, Scientific & Technical Services; Finance & Insurance; Information; and Health Care & Social Assistance sectors, accounting for between about 7 and 15 percent of total output.
- Nearly 19 percent of the Region's employment in 2010 was comprised of private sector economic base activities, those activities that bring net new wealth into the regional economy and drive growth in other sectors. This represents a lower share than California's nearly 27 percent private sector economic base employment. Over the past 10 years, private sector economic base employment in the Region showed a decline of almost 13 percent compared to private sector local-serving employment which grew about 4 percent in that time period.

KEY FINDINGS

- Establishments with less than 20 employees accounted for over 91 percent of the close to 70,000 businesses in the Sacramento Region in 2010. This is a comparable share to the statewide average and most regional economies in the country. Robust growth over the past 10 years in the smallest business segment, those with 0 to 4 employees, pushed the share of establishments in the Region in this size category up by close to 10 percentage points in this period. This dynamic was also seen across the state. The Sacramento Region contains about 5 percent of all business establishments in the state.
- The Sacramento Region's economy creates roughly \$3.7 billion of export activity annually based on 2005 to 2009 measures. Over half of the value in the Region is generated through computer and electronic products and crop production. The Region supports almost 3 percent of the total exports in the state, which is half of the regional share of the overall economy and population primarily due to lower limited diversification of export products and lower export per employee values (\$4,000 compared to \$8,600 statewide).
- On an annual average basis between 2005 and 2010, the Sacramento Region received nearly \$56 million of venture capital investment. In this period the Region captured only 0.5 percent of all investment in the state with investment per employee amounts of \$60 compared to \$673 in the state. While venture capital investment in the Region shows relatively weak levels, it reflects innovation capacity in the biotechnology, health care services, and alternative energy fields.
- Expanded economic development opportunities can be realized by facilitating growth and development across an entire value chain and related infrastructure and services as an alternative to efforts focused on a specific industry sector. Over the past decade, a large number of regions have adopted this cluster-based concept within their economic development efforts to boost competitiveness and enhance economic vitality. Seven viable clusters in the Sacramento Region were identified based on economic performance, innovation activity, and other relevant dynamics.
 1. Advanced Manufacturing
 2. Agriculture & Food
 3. Clean Energy Technology
 4. Education & Knowledge Creation
 5. Information & Communications Technology
 6. Knowledge-Intensive Business & Financial Services
 7. Life Sciences & Health Services
- The seven identified viable clusters range in size from roughly 3,000 jobs to 99,000 jobs and \$850 million to \$18 billion of output and include between 10 and 32 distinct economic activities. Projections for cluster job growth over the next 10 years range from approximately -3 percent to 25 percent while output projections are between about 21 percent and 36 percent.
- There are a handful of commonly-recognized factors that point to a region's potential for growth and development across nearly all industry sectors and clusters. Eight of the

KEY FINDINGS

Sacramento Region's 14 economic foundations support generally positive or neutral perceptions based on several years of input from national, statewide, and regional contacts in the economic development, research, site selection, and business communities.

1. Suitability of commercial real estate
 2. Suitability of infrastructure
 3. Workforce size and quality
 4. Consumer base size and quality
 5. Access to domestic markets
 6. Quality of life
 7. Higher education infrastructure
 8. Access to business services
- Six of the Sacramento Region's key economic foundations garner negative perceptions. The cost of doing business relates primarily to broader issues of operating within the state of California. Business climate began to move into increasingly negative perceptions with the state budget problems and severe regional recession. Input on foreign market interactions show negative perceptions regarding the relatively low level of inbound foreign investment and export activity outside of agriculture. The final three negative factors reflect longer-term perceptions of the Sacramento Region in the entrepreneurship and innovation arenas—input typically reveals a viewpoint that the Region does not support an environment that facilitates an innovative entrepreneurial environment due to its lack of critical factors such as access to early- and mid-stage capital, technology transfer capacity, and incubation space.
 - Further illustrating regional innovation issues, the 2012 *Sacramento Region Innovation Score Card* study gave the Region an innovation readiness score of 65, which puts it toward the bottom of the standard innovation maturity model. The study identified four key impediments inhibiting the level of innovation maturity in the Sacramento Region.
 1. Lack of early-stage venture capital
 2. Unfulfilled commercialization and technology transfer capability
 3. Lack of venture-backed executives and serial entrepreneurs
 4. Insufficient skilled technical workforce
 - Across the nation, regional economic development programs generally fall within six main categories. An evaluation of regional organizations within the Sacramento Region revealed that most of the standard set of economic development programs and services are being provided to some degree.
 1. Business Attraction & Marketing
 2. Business Retention & Expansion
 3. Entrepreneurial & Small Business Development
 4. Business Finance
 5. Technology Development
 6. Workforce Development

KEY FINDINGS

- There are two primary issues that emerged across the full spectrum of economic development programs. First, with the exception of a few distinct programs, the availability of business finance provided directly through regional organizations is very limited across the board. As a result, the desired outcomes in this area are not being generated within the Region besides what is happening through the standard private sector offerings. Second, there are program gaps in the technology development arena particularly related to specialized business space (e.g. web lab; prototype, testing, and demonstration; and contract manufacturing), technology deployment assistance, specialized talent attraction and retention campaigns, and technology transfer and commercialization.
- A few other areas were identified as secondary issues. Under workforce development, there are no active broad regional talent attraction and retention campaigns in the Sacramento Region, which could be impacting the Region's ability to foster and keep young professionals and other targeted groups or skill sets in the community. Additionally, there is currently limited business incubation space for entrepreneurs and small businesses in the Region to help these types of establishments mature and grow into successful and sustainable companies through the provision of low-cost start-up space with integrated support services. Similarly, there are no formal business accelerator programs in the Region that rely on concentrated mentor and peer exposure to help entrepreneurs build strong ideas and companies. Further, the existing regional business retention and expansion program structure is limited geographically and defined individually by paying participants (i.e. local jurisdictions, partners, and sponsors)—there is an opportunity to further develop a regional program since the existing structure was not necessarily designed to fully incorporate regional early warning customer relationship management, targeted business outreach and follow-up, open business feedback systems, and business assistance service coordination.

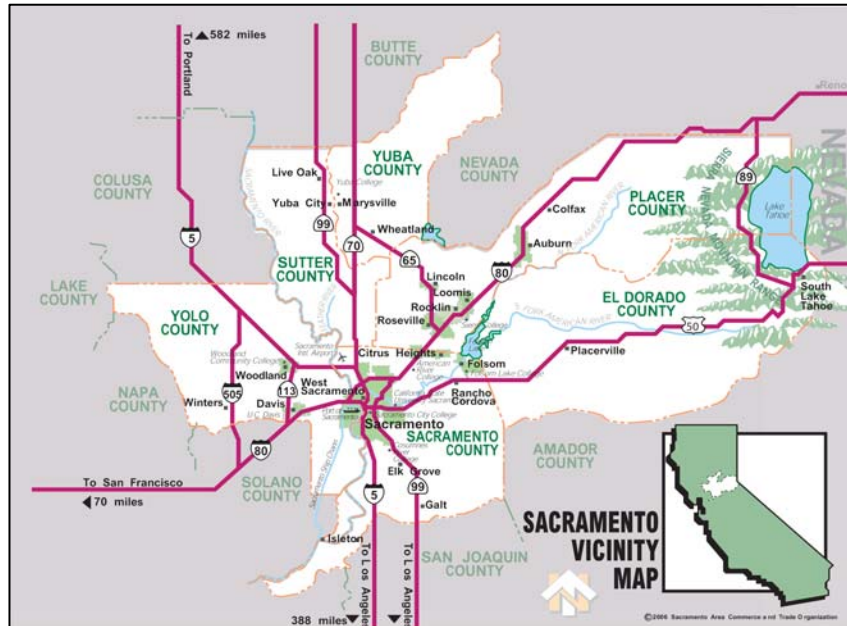
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Introduction

In response to the severe economic recession that continues to impact the six-county Sacramento Region's businesses and residents, leaders of the core regional organizations established the Next Economy initiative. Next Economy is a broad-based public-private partnership effort to create effective strategies and joint actions to drive new job creation, investment, and innovation in the Region. With a foundation of sound data and collaborative input from stakeholders across the Region, the resulting Capital Region Prosperity Plan will center on catalyzing strategies to grow jobs and investment that:



- Encourage innovation, new business creation, capital formation and the scaling up of key industry sectors in the Region, and through enhanced trade, link the Region to the outside world;
- Remove unnecessary impediments that slow business investment and job creation; and
- Ensure the regional workforce acquires the education and skills needed for the jobs that will be in demand in the Next Economy.

The Plan will leverage unique assets, synchronize multiple efforts, and maximize talent and resources to pursue economic revitalization and improve the lives of the Region's 2.3 million residents.

This report covers the findings from the core research elements of the Next Economy project. The analysis presented was integrated into the project at various points to encourage and set the context for collaborative action, identify economic development potential in specific economic activities, and prioritize actions to build an effective economic development ecosystem in the Sacramento Region. The report is presented in three main sections. The first section sets the context for regional economic development strategic planning by providing a graphic-based summary of key economic trends in the Sacramento Region. The second section discusses the concept of cluster-based economic development and presents a set of viable cluster opportunities in the Sacramento Region. The final section focuses on the main components of the regional economic development ecosystem and covers general perceptions of the Sacramento Region's core economic foundations as well as an evaluation of regional economic development programs

INTRODUCTION

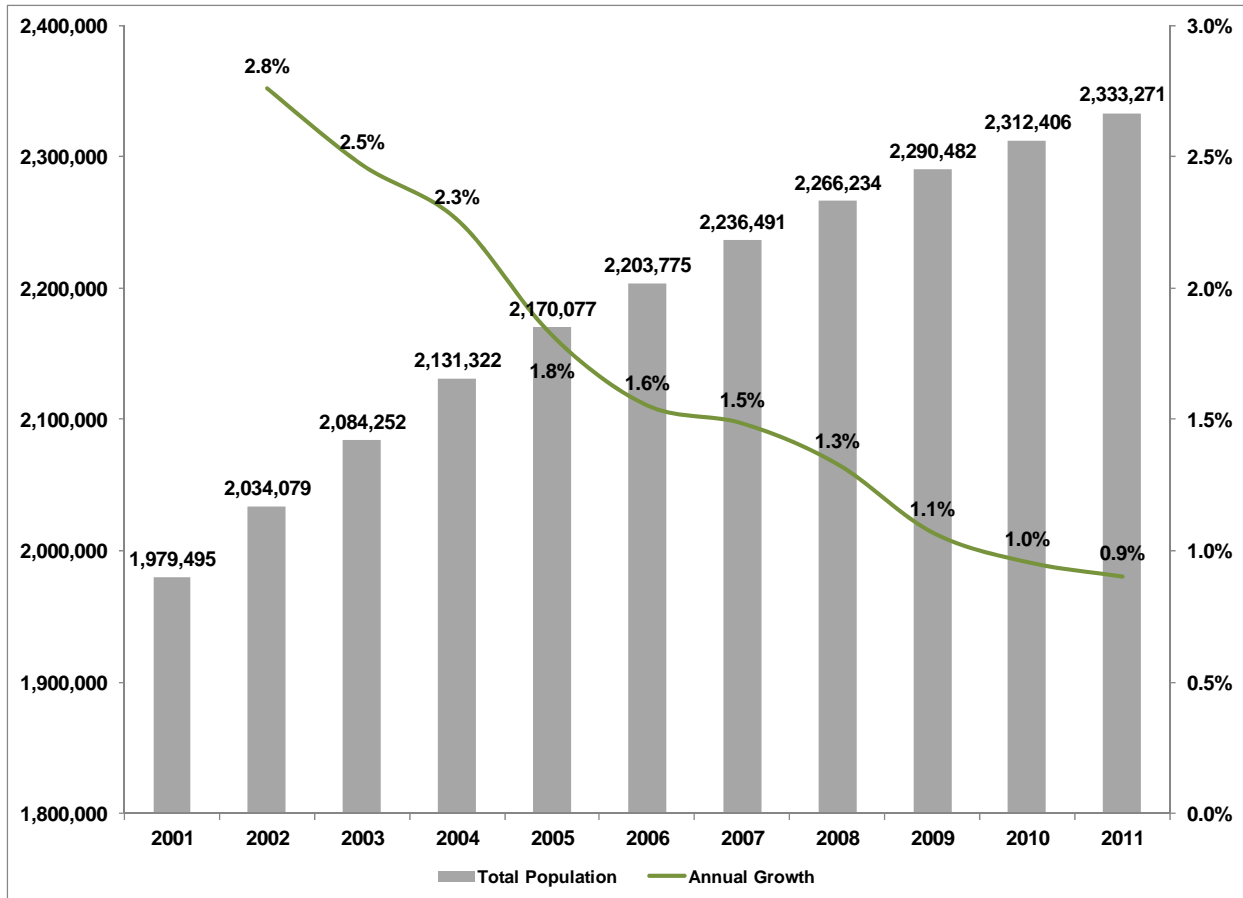
and services. A technical notes section follows the three main sections and highlights the research methodology utilized for specific pieces of analysis in the report.

Regional Trends

It is important for regional economic development strategic planning efforts to consider the current economic environment in order to effectively focus resources and calibrate intended outcomes. This section provides a graphic-based summary of key economic conditions and trends in the Sacramento Region. The majority of the analysis focuses on business-related trends with supplemental information provided on various workforce factors and innovation indicators.

The Sacramento Region was home to more than 2.3 million people in 2011. Over the past 10 years, the Region’s population increased by around 18 percent or over 350,000 people. Around 66 percent of the Region’s population growth in this period was a result of net in-migration. In comparison, the state’s population grew by roughly 10 percent between 2001 and 2011 with about 16 percent of the gain due to net in-migration. The Region accounts for about 6 percent of the state’s total population.

SACRAMENTO REGION POPULATION

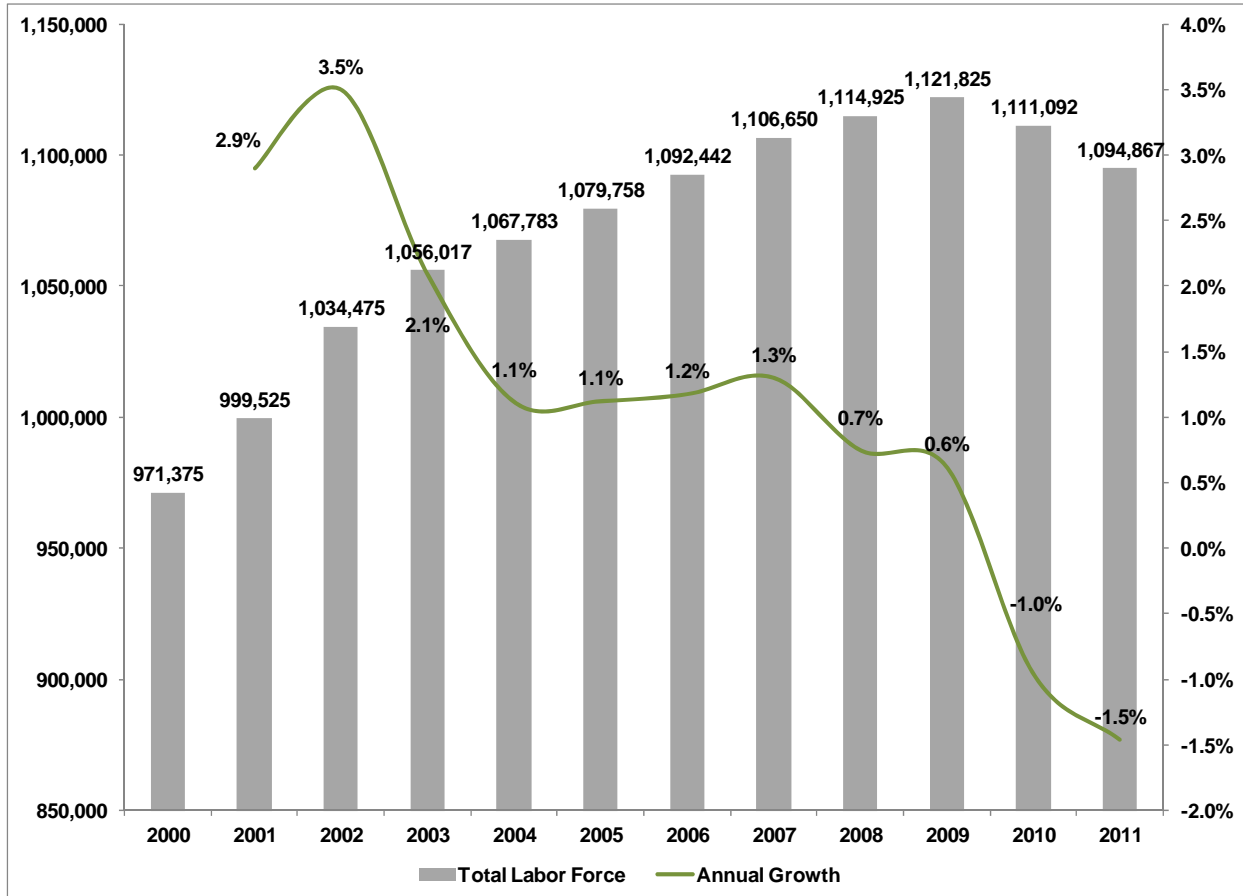


Center for Strategic Economic Research, February 2012
 Data Source: CA Department of Finance

REGIONAL TRENDS

The labor force (those residents that are employed or actively seeking work) in the Sacramento Region was just shy of 1.1 million people in 2011. Since 2001, the Region’s labor force grew by close to 10 percent, notably higher than California’s growth rate of nearly 6 percent over this time period. The Region posted annual labor force growth through 2009, but has experienced declines since that point as a result of the regional recession.

SACRAMENTO REGION LABOR FORCE

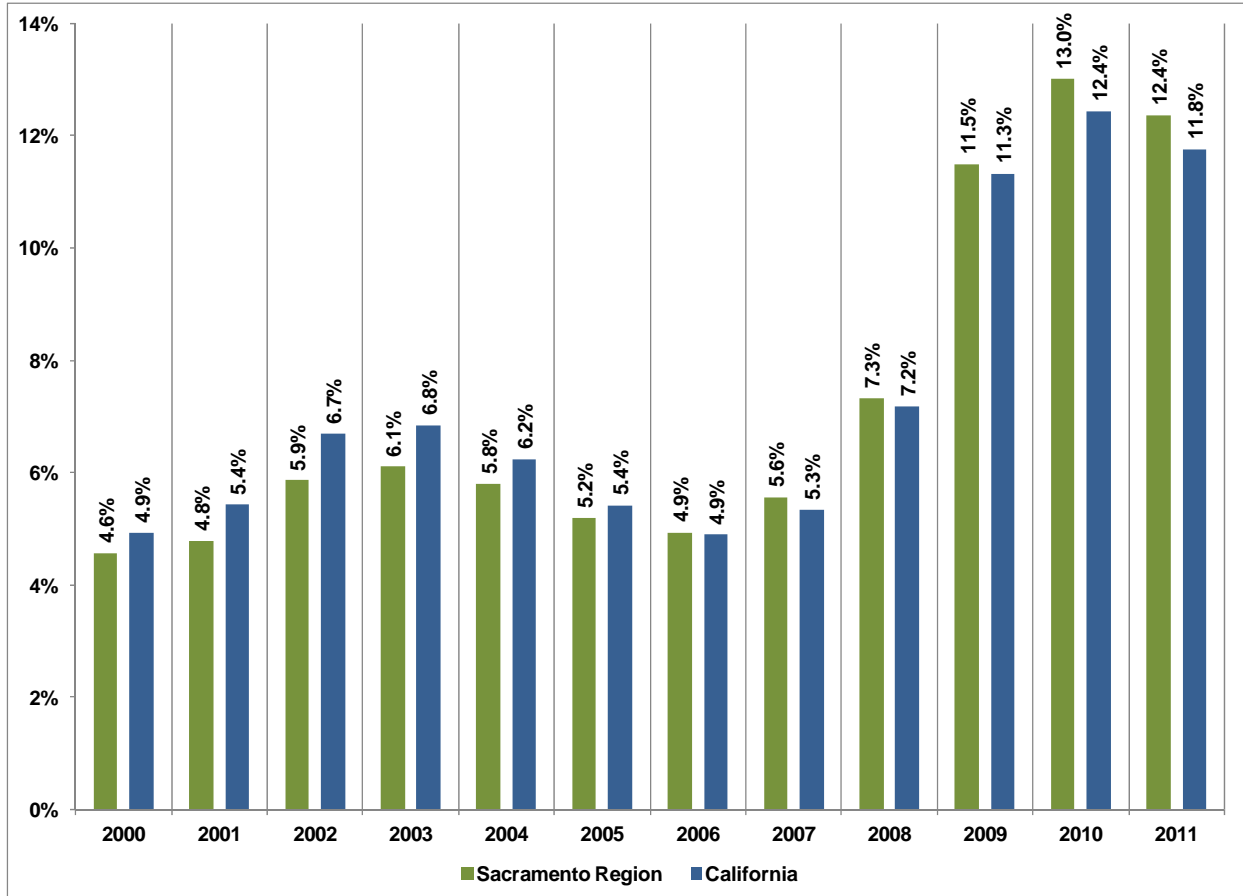


Center for Strategic Economic Research, February 2012
 Data Source: CA Employment Development Department

REGIONAL TRENDS

Over the past decade, the Sacramento Region's unemployment rate has tracked below the statewide average, but this dynamic shifted in 2007 as the recession began to take hold. In 2011, the Region posted an unemployment rate over 12 percent, accounting for over 135,000 residents officially considered unemployed.

UNEMPLOYMENT RATE

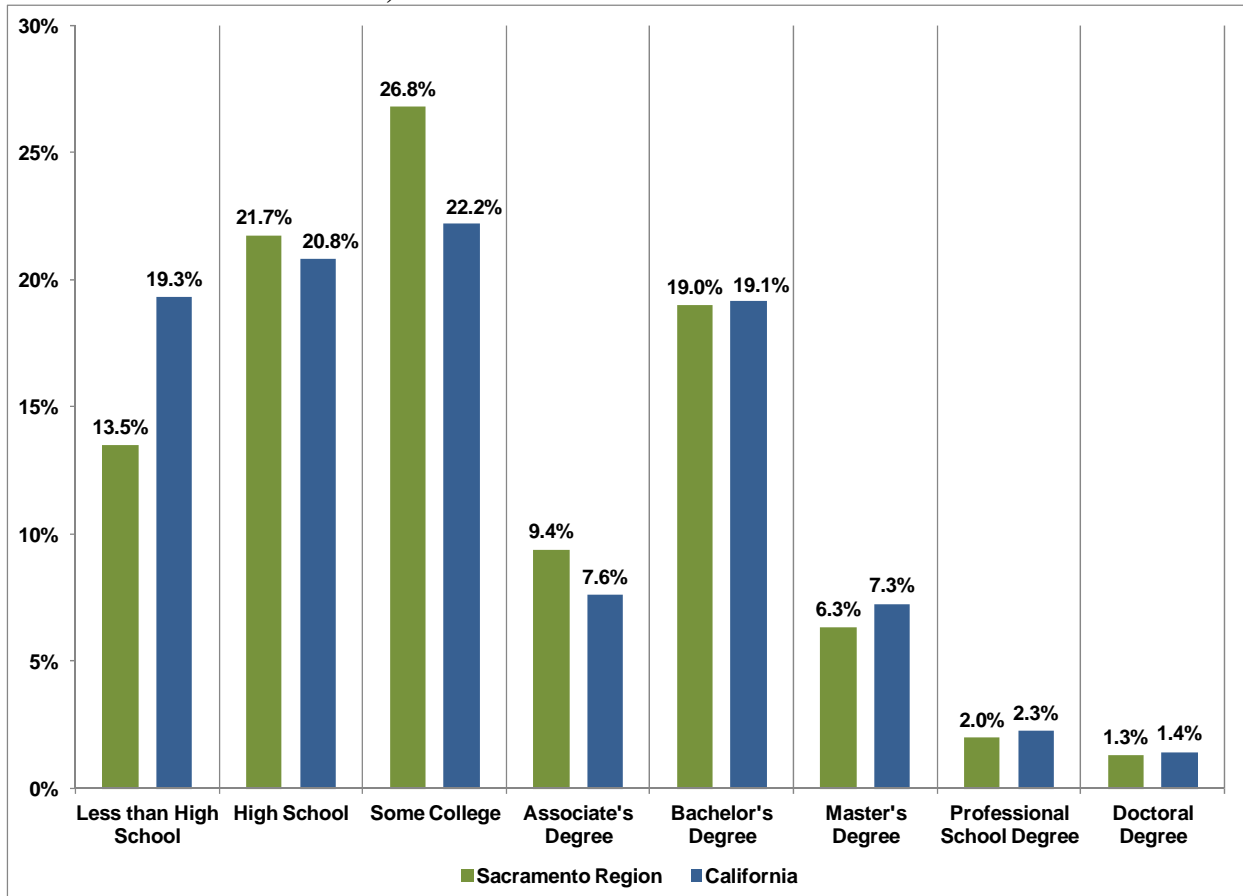


Center for Strategic Economic Research, February 2012
Data Source: CA Employment Development Department

REGIONAL TRENDS

In 2010, 38 percent of the Sacramento Region’s population (age 25 and above) had some form of a college degree, which was around the statewide average. A large share of this group has attained a Bachelor’s degree. The Region is on par with or above the state in most college degree educational attainment categories.

EDUCATIONAL ATTAINMENT, 2010



Center for Strategic Economic Research, February 2012

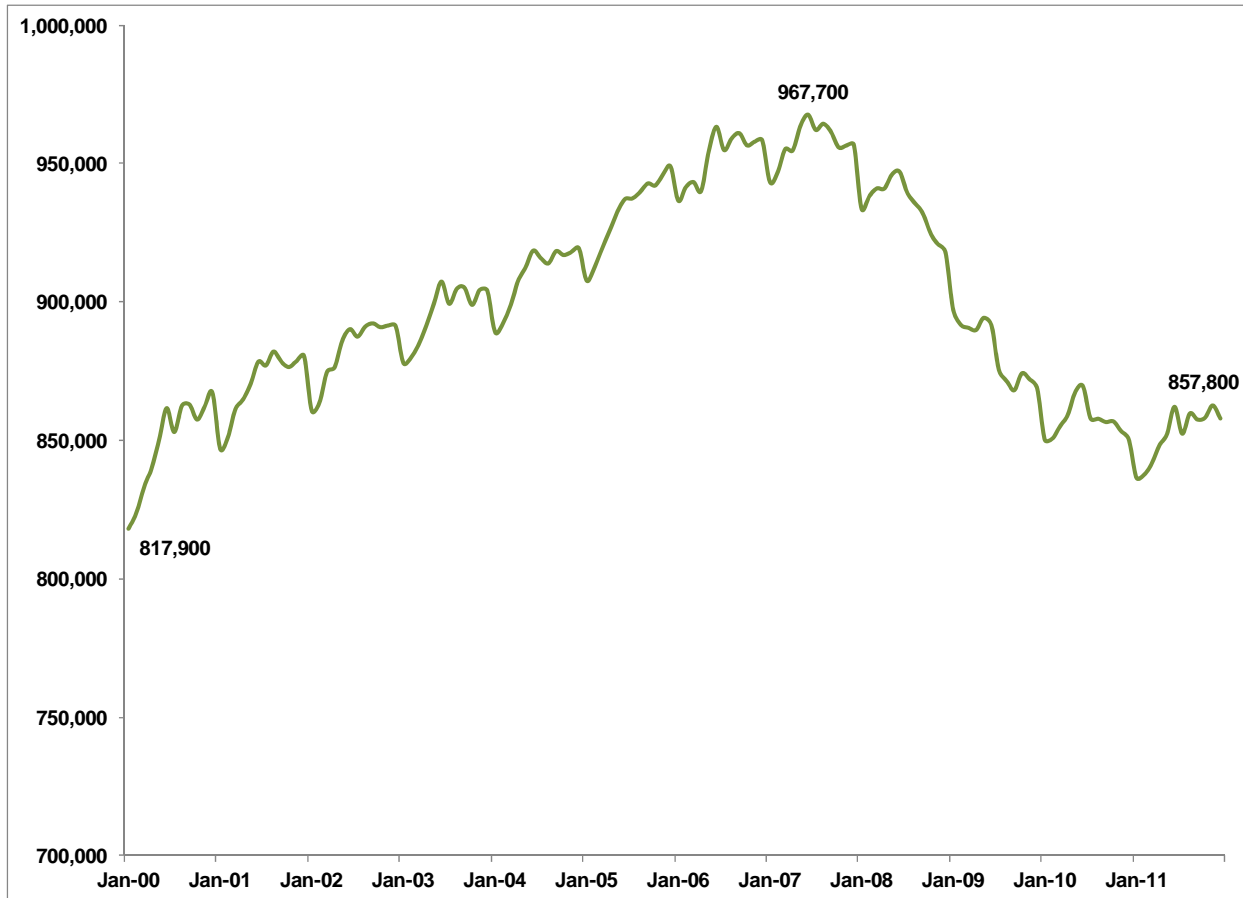
Data Source: U.S. Census Bureau, 2010 American Community Survey

Note: Measures include population age 25 and above.

REGIONAL TRENDS

Private and public sector establishments in the Sacramento Region supported nearly 858,000 jobs on payrolls as of December 2011. This total employment level is about 110,000 below the recent peak in the summer of 2007 and tracks close to levels supported back in 2000 and 2001. In December 2011, the Region included about 6 percent of all payroll jobs in the state.

SACRAMENTO REGION TOTAL EMPLOYMENT

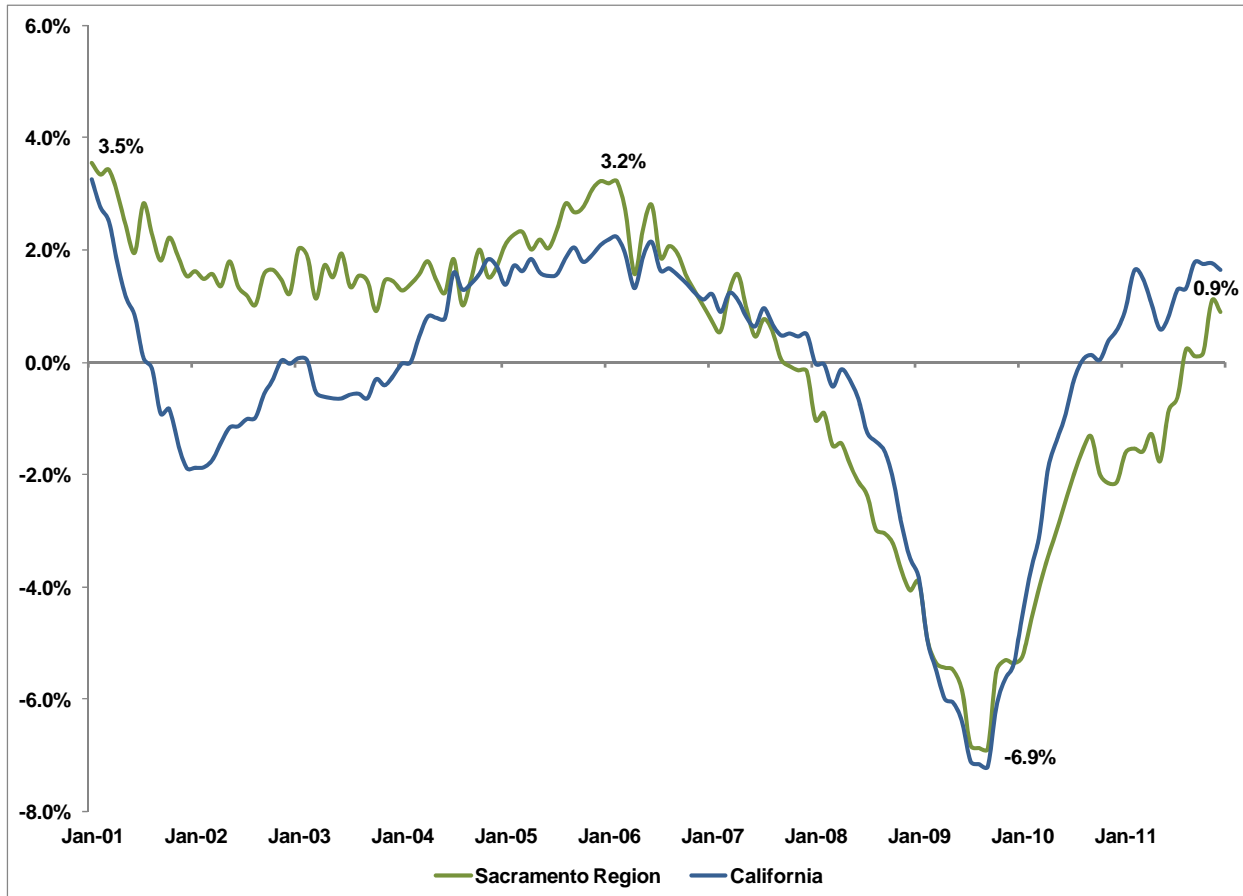


Center for Strategic Economic Research, February 2012
Data Source: CA Employment Development Department

REGIONAL TRENDS

Annual job growth in the Sacramento Region outpaced the state for most of the early 2000s. Since the beginning of the recession, the Region's job growth has, for the most part, fallen below the statewide average. The Region hit a low point in the summer of 2009 with a rate of loss close to 7 percent and only moved back into positive job growth territory in late 2011.

ANNUAL EMPLOYMENT GROWTH

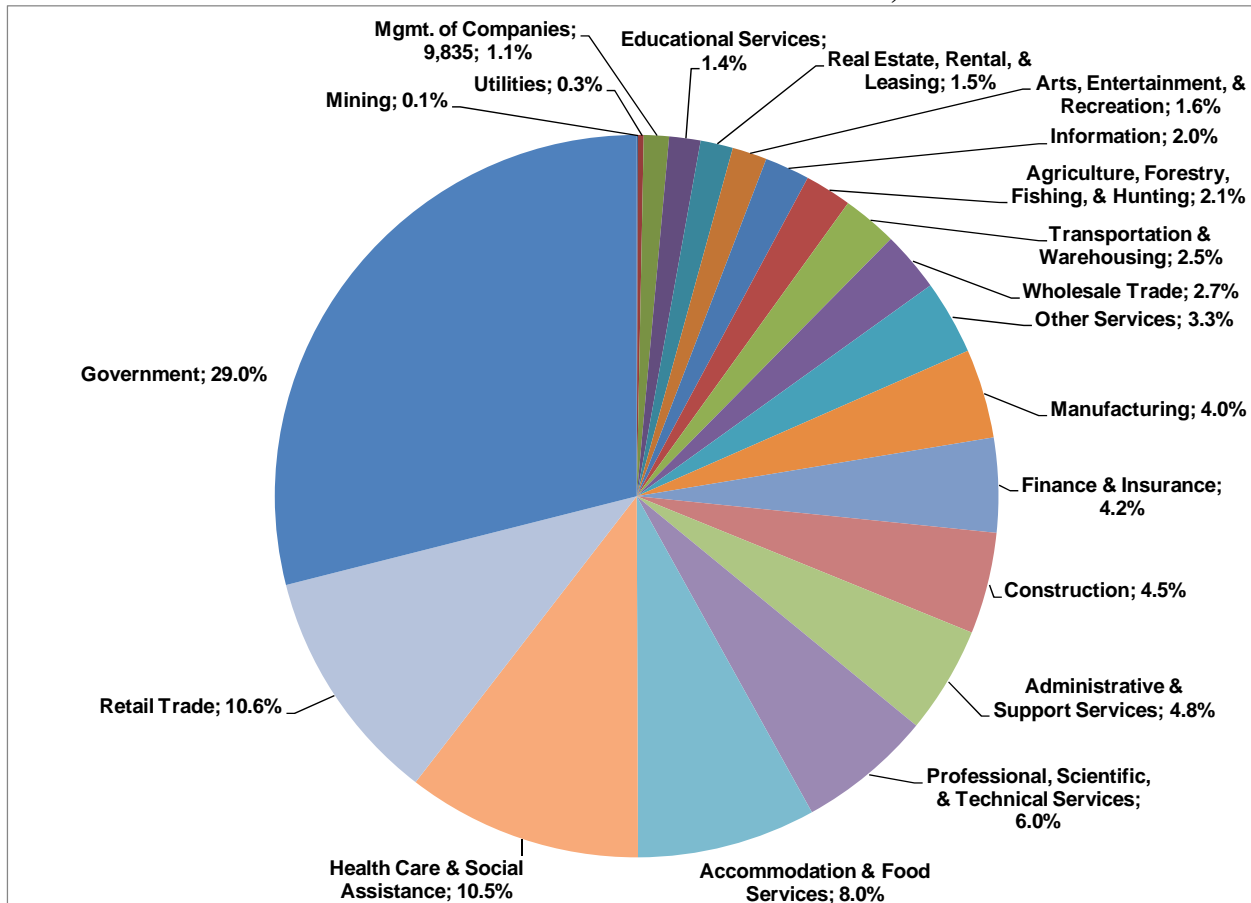


Center for Strategic Economic Research, February 2012
Data Source: CA Employment Development Department

REGIONAL TRENDS

Twenty-nine percent of the roughly 877,000 payroll jobs in the Sacramento Region in 2010 were in the Government sector. The largest private sector activities included Retail Trade; Health Care & Social Assistance; Accommodation & Food Services; and Professional, Scientific, & Technical Services, capturing between 6 and 11 percent of all jobs in the Region. In the past 10 years, the Government and Health Care & Social Assistance sectors experienced the greatest gains in the share of total regional employment.

SACRAMENTO REGION MAJOR SECTOR EMPLOYMENT STRUCTURE, 2010

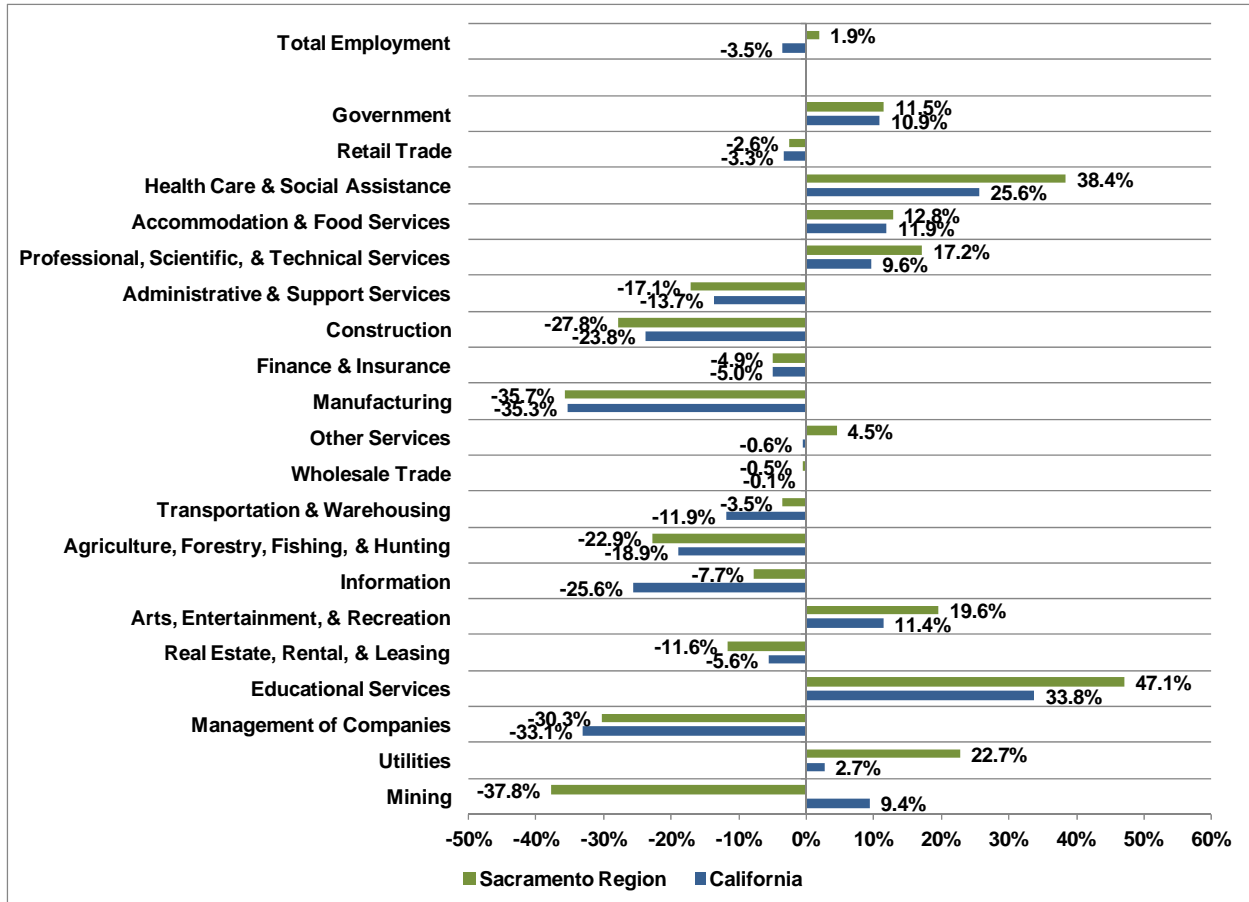


Center for Strategic Economic Research, February 2012
 Data Sources: CA Employment Development Department and Moody's Analytics

REGIONAL TRENDS

Between 2000 and 2010, total employment in the Sacramento Region grew by nearly 2 percent with a gain of over 16,000 jobs. The Region's rate of growth surpassed the state, which posted an overall decline of nearly 4 percent in this period. Most of the Region's larger sectors saw above average gains in this period with Health Care & Social Assistance leading the way. Several smaller sectors also posted robust job growth in the past decade including Arts, Entertainment, & Recreation; Educational Services (private sector), and Utilities.

MAJOR SECTOR EMPLOYMENT GROWTH, 2000-2010 SORTED BY SACRAMENTO REGION 2010 EMPLOYMENT

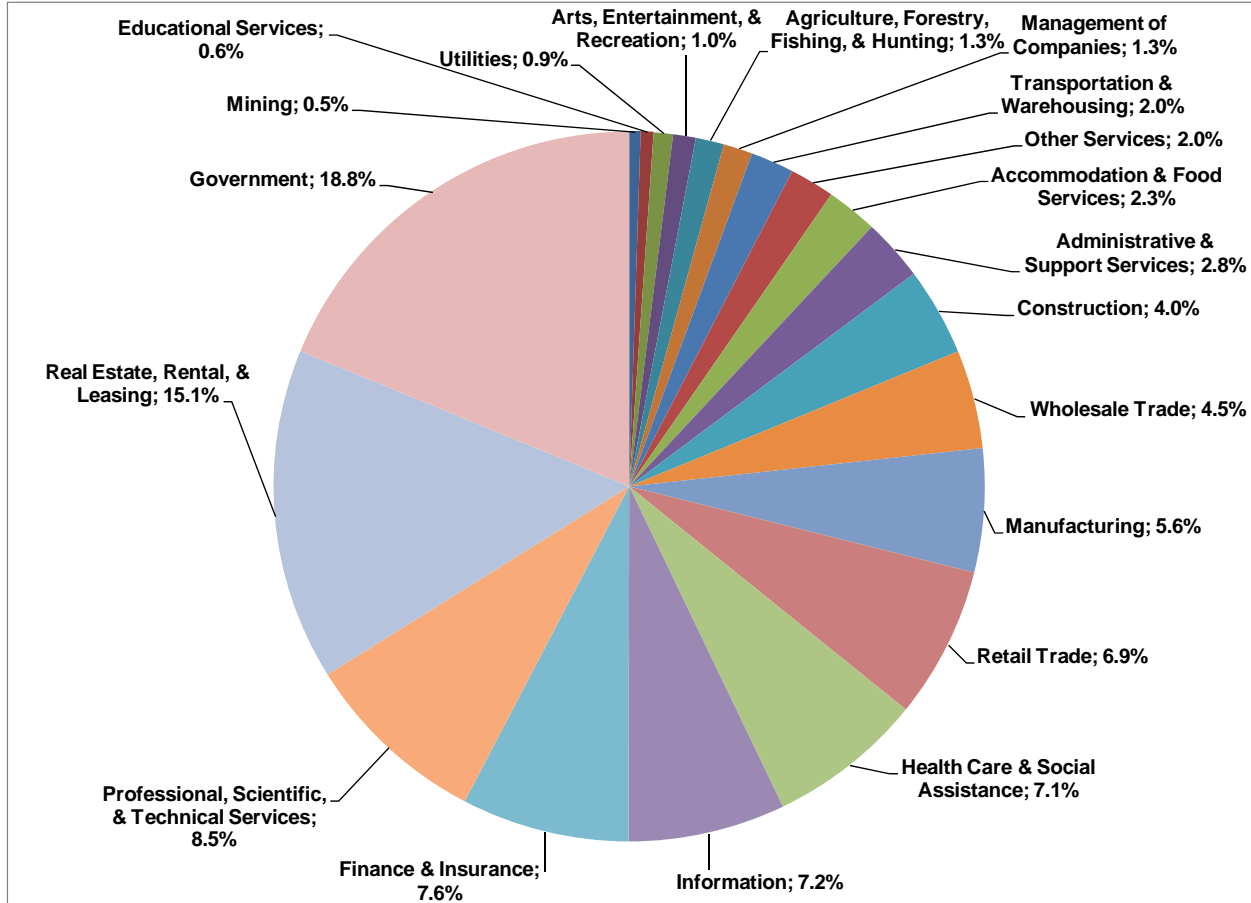


Center for Strategic Economic Research, February 2012
Data Sources: CA Employment Development Department and Moody's Analytics

REGIONAL TRENDS

Total economic output in the Sacramento Region topped \$97 billion in 2010, equating to about 6 percent of the state's total output. The Government sector accounted for the greatest share of output in the Sacramento Region's economy based on the equivalent market value of goods and services provided. Other notable contributors to regional output included the Real Estate, Rental, & Leasing; Professional, Scientific & Technical Services; Finance & Insurance; Information; and Health Care & Social Assistance sectors, accounting for between about 7 and 15 percent of total output. The Information and Health Care & Social Assistance sectors posted the largest gains in the percentage of total output between 2000 and 2010.

SACRAMENTO REGION MAJOR SECTOR OUTPUT STRUCTURE, 2010

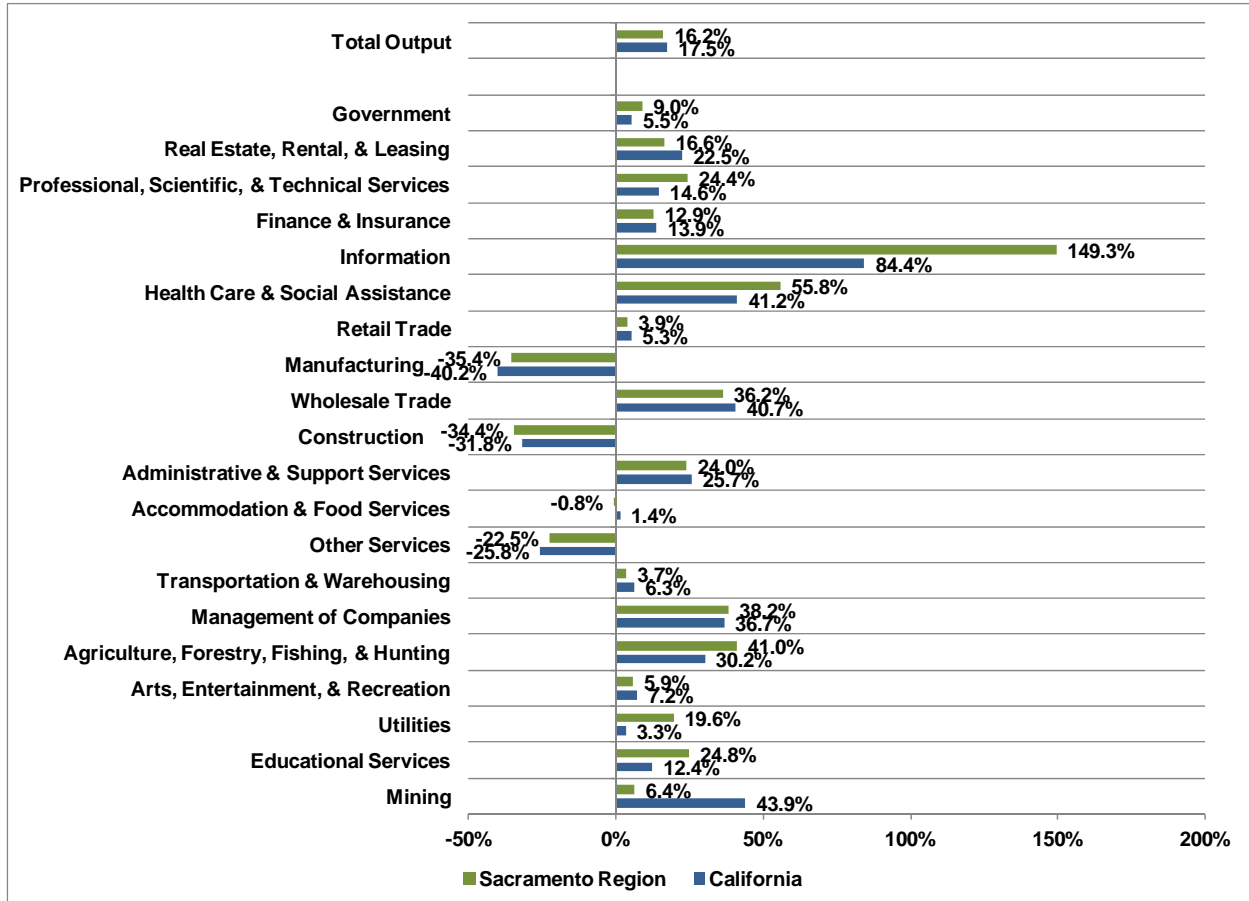


Center for Strategic Economic Research, February 2012
 Data Sources: U.S. Bureau of Economic Analysis and Moody's Analytics

REGIONAL TRENDS

The Sacramento Region's economic output grew by roughly 16 percent over the past decade, a little more than one percentage point below the statewide average growth rate. The most robust growth was seen in the Information; Health Care & Social Assistance; and Agriculture, Forestry, Fishing, & Hunting sectors. The former two are among the Region's largest sectors in terms of output.

MAJOR SECTOR OUTPUT GROWTH, 2000-2010 SORTED BY SACRAMENTO REGION 2010 OUTPUT

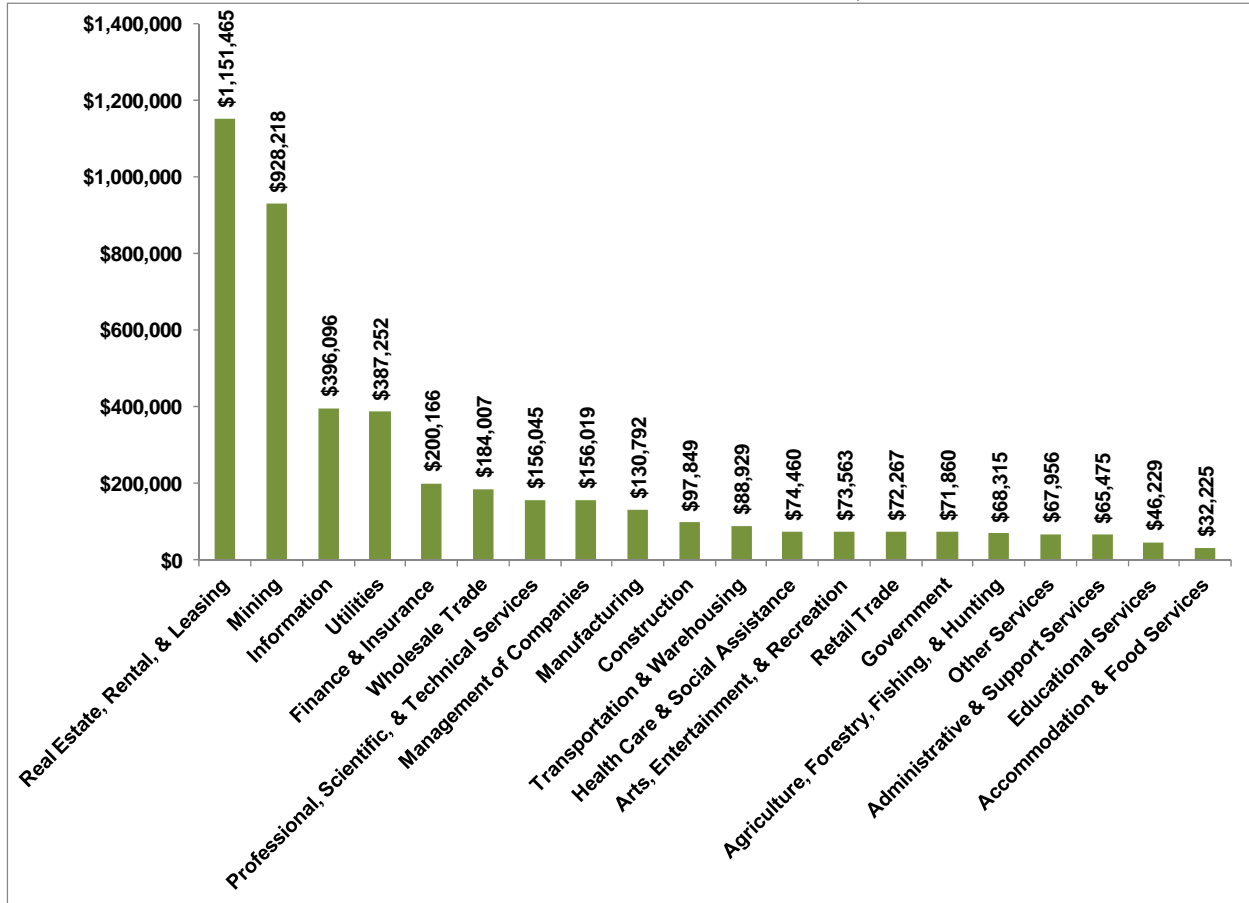


Center for Strategic Economic Research, February 2012
Data Sources: U.S. Bureau of Economic Analysis and Moody's Analytics

REGIONAL TRENDS

Productivity, or output per employee, has become a major driver of economic growth in several industry sectors. Regional output per employee in Sacramento is slightly higher than the statewide average. Nine of the Region’s major sectors had 2010 productivity levels above the regional average with Real Estate, Rental, & Leasing; Mining; and Information topping the list.

SACRAMENTO REGION MAJOR SECTOR OUTPUT PER EMPLOYEE, 2010



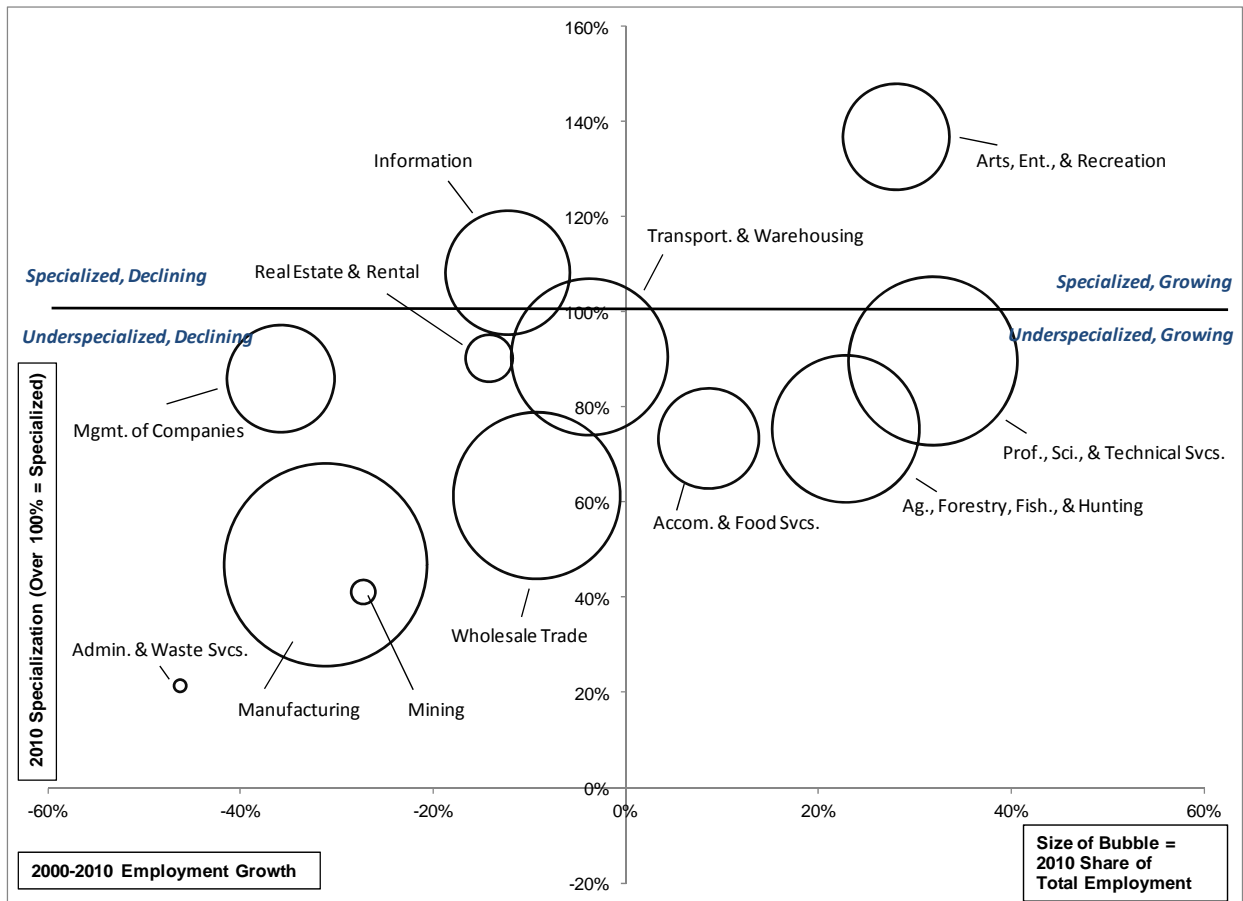
Center for Strategic Economic Research, February 2012

Data Sources: CA Employment Development Department, U.S. Bureau of Economic Analysis, and Moody’s Analytics

REGIONAL TRENDS

Nearly 19 percent of the Region’s employment in 2010 was comprised of private sector economic base activities, those activities that bring net new wealth into the regional economy and drive growth in other sectors. This represents a lower share than California’s nearly 27 percent private sector economic base employment. Over the past 10 years, private sector economic base employment in the Region showed a decline of almost 13 percent compared to private sector local-serving employment which grew about 4 percent in that time period. Most of the sectors with a large economic base component are underspecialized (a smaller share of total employment than the statewide average) with only two of the top five posting employment gains in the economic base components over the past decade including Professional, Scientific, & Technical Services and Agriculture, Forestry, Fishing, & Hunting.

SACRAMENTO REGION PRIVATE SECTOR ECONOMIC BASE EMPLOYMENT DYNAMICS



Center for Strategic Economic Research, February 2012

Data Sources: CA Employment Development Department, IMPLAN, and Moody’s Analytics

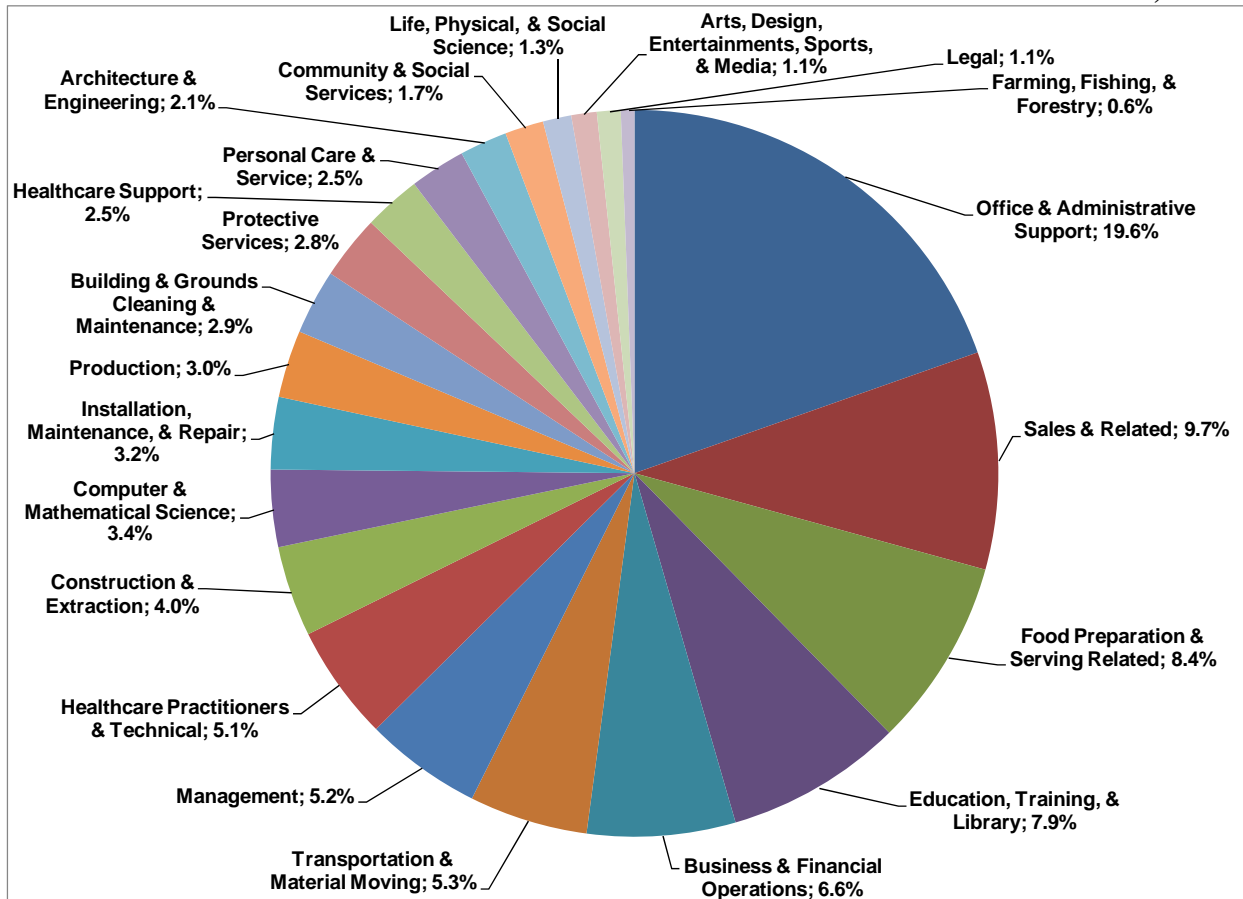
Notes: Economic base activities generate net new wealth in a regional economy through domestic and foreign exports or other spending attraction.

Specialization compares the share of employment in the region and the state; a measure over 100% indicates that the region has a greater share than the state (i.e. specialized).

REGIONAL TRENDS

The majority of the occupations employed by private and public sector establishments in the Sacramento Region in 2010 fall within five categories including Office & Administrative Support; Sales & Related; Food Preparation & Serving Related; Education, Training, & Library; and Business & Financial Operations. The top three categories are common across most regional economies in the country. The Region's occupational structure has remained relatively stable over the past 10 years.

SACRAMENTO REGION MAJOR OCCUPATIONAL CATEGORY EMPLOYMENT STRUCTURE, 2010

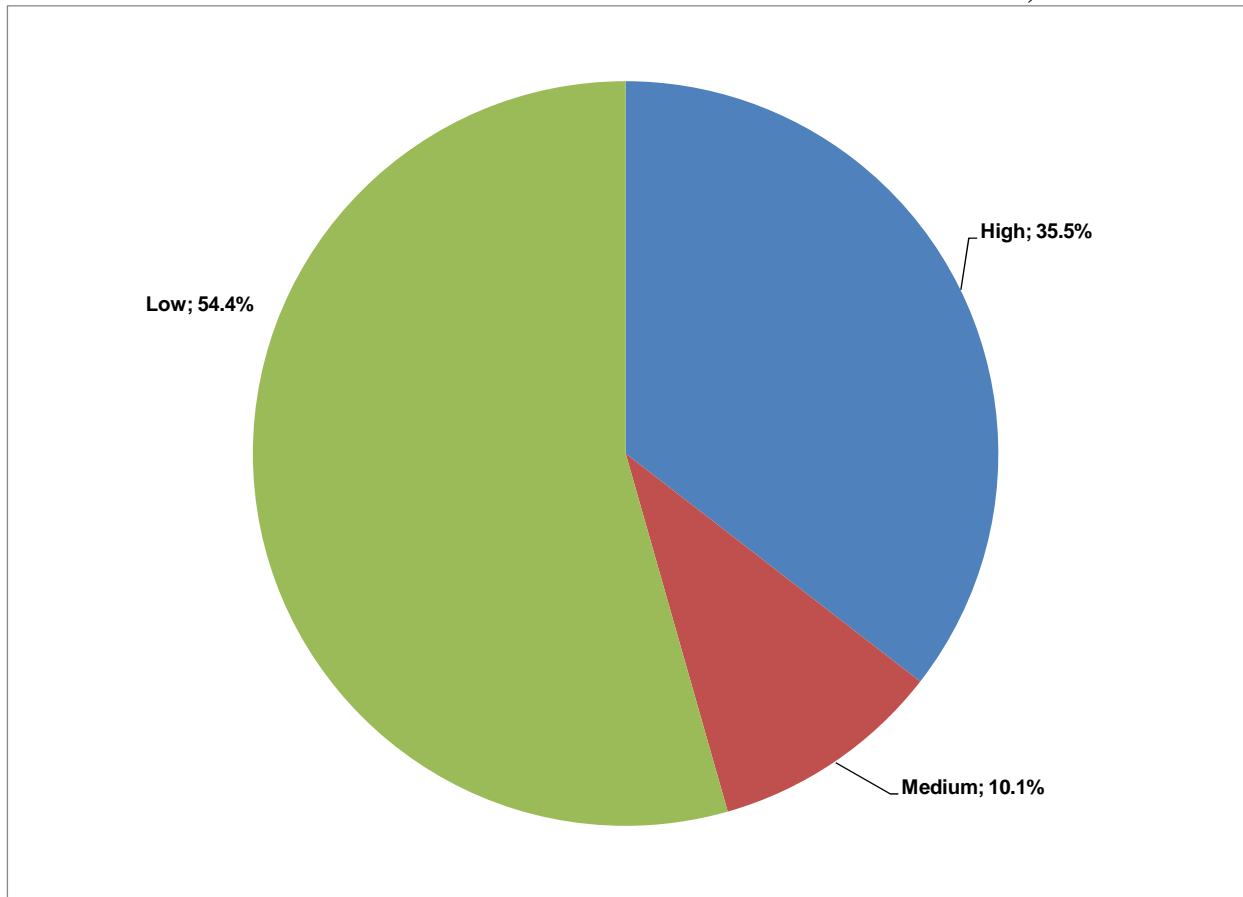


Center for Strategic Economic Research, February 2012
 Data Source: U.S. Bureau of Labor Statistics

REGIONAL TRENDS

Over half of the occupations supported by establishments in the Sacramento Region in 2010 required a low level of preparation (some on-the-job training and high school level education), which is a slightly lower share than the statewide average. The second largest grouping of occupations in the Sacramento Region require a high level of preparation (a four-year college degree or above plus work experience), representing about 36 percent of occupational employment (a somewhat larger proportion than the statewide average).

SACRAMENTO REGION OCCUPATIONAL LEVEL OF PREPARATION STRUCTURE, 2010



Center for Strategic Economic Research, February 2012

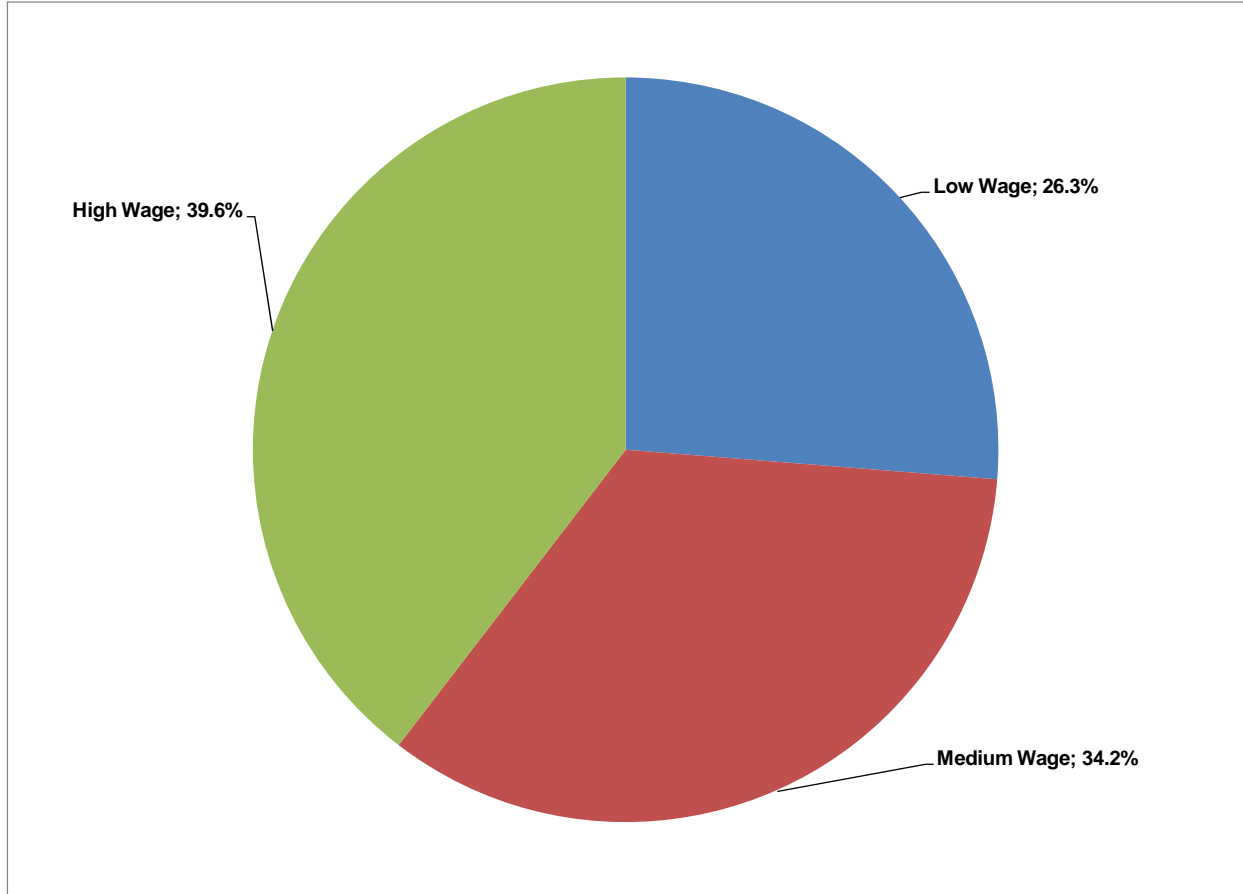
Data Sources: U.S. Bureau of Labor Statistics and O*Net

Note: Preparation Categories—low = some on-the-job training and high school level education, medium = considerable on-the-job training, vocational education, or a two-year degree, and high = a four-year college degree or above plus work experience.

REGIONAL TRENDS

Almost 40 percent of workers in the Sacramento Region earned a high level wage in 2009 (more than \$3,333 per month), similar to the statewide average. This was the only wage level category to experience positive growth in the Region and state between 2002 and 2009. Another 34 percent of workers earned a medium level wage (\$1,251 to \$3,333 per month), a slightly lower share than the statewide average.

SACRAMENTO REGION WORKER EARNINGS LEVEL STRUCTURE, 2009



Center for Strategic Economic Research, February 2012

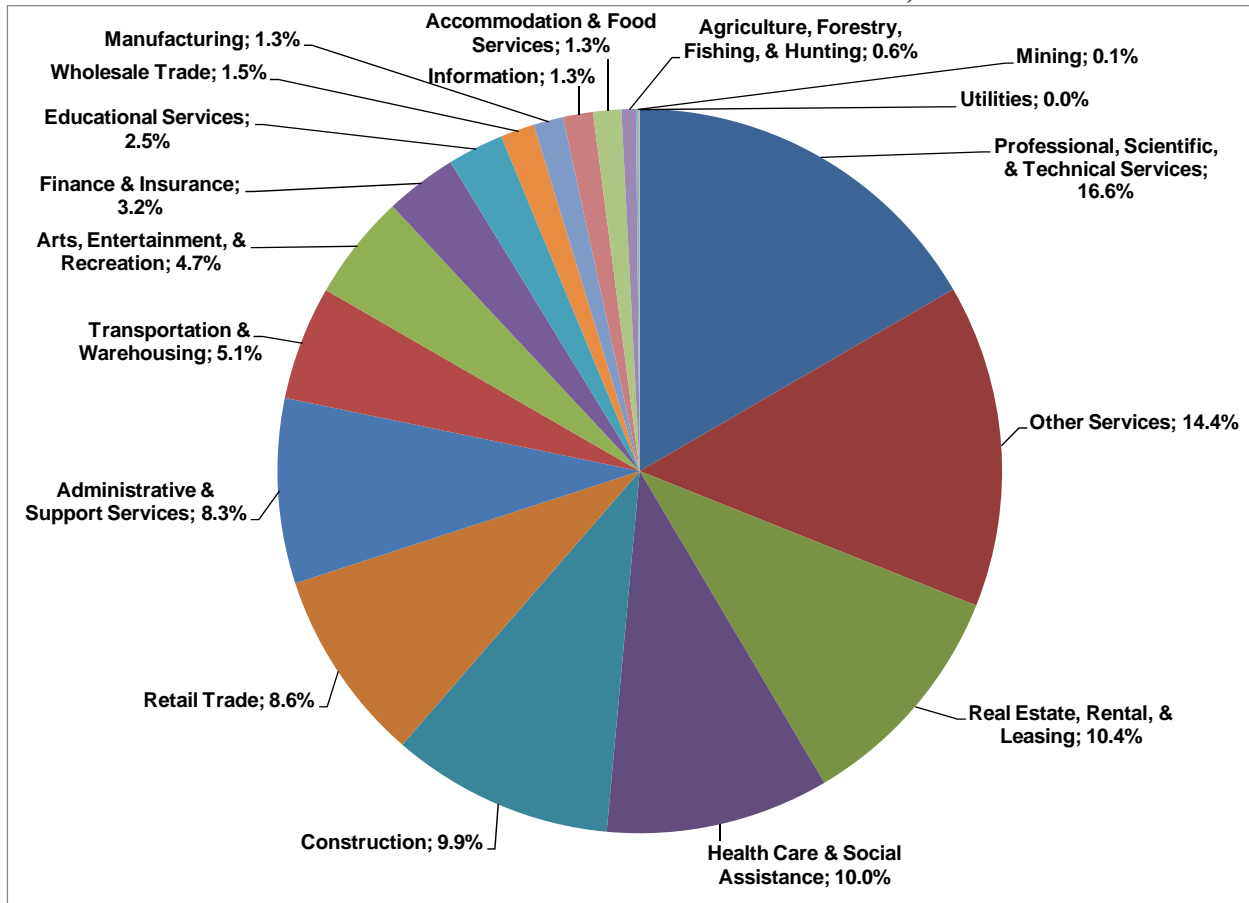
Data Source: U.S. Census Bureau, Local Employment Dynamics

Note: Wage Categories—low = \$1,250 per month or less; medium = \$1,251 to \$3,333 per month; and high = more than \$3,333 per month.

REGIONAL TRENDS

In addition to the approximately 898,000 jobs on payrolls, the Sacramento Region contained over 145,000 nonemployers in 2009 (self-employed or proprietors). This segment of the regional economy increased by over 21 percent since 2002, outpacing the statewide average by a notable margin. The sectors with the greatest amount of nonemployers in the Region include Professional, Scientific, & Technical Services; Other Services; and Real Estate, Rental, & Leasing.

SACRAMENTO REGION MAJOR SECTOR NONEMPLOYER STRUCTURE, 2009

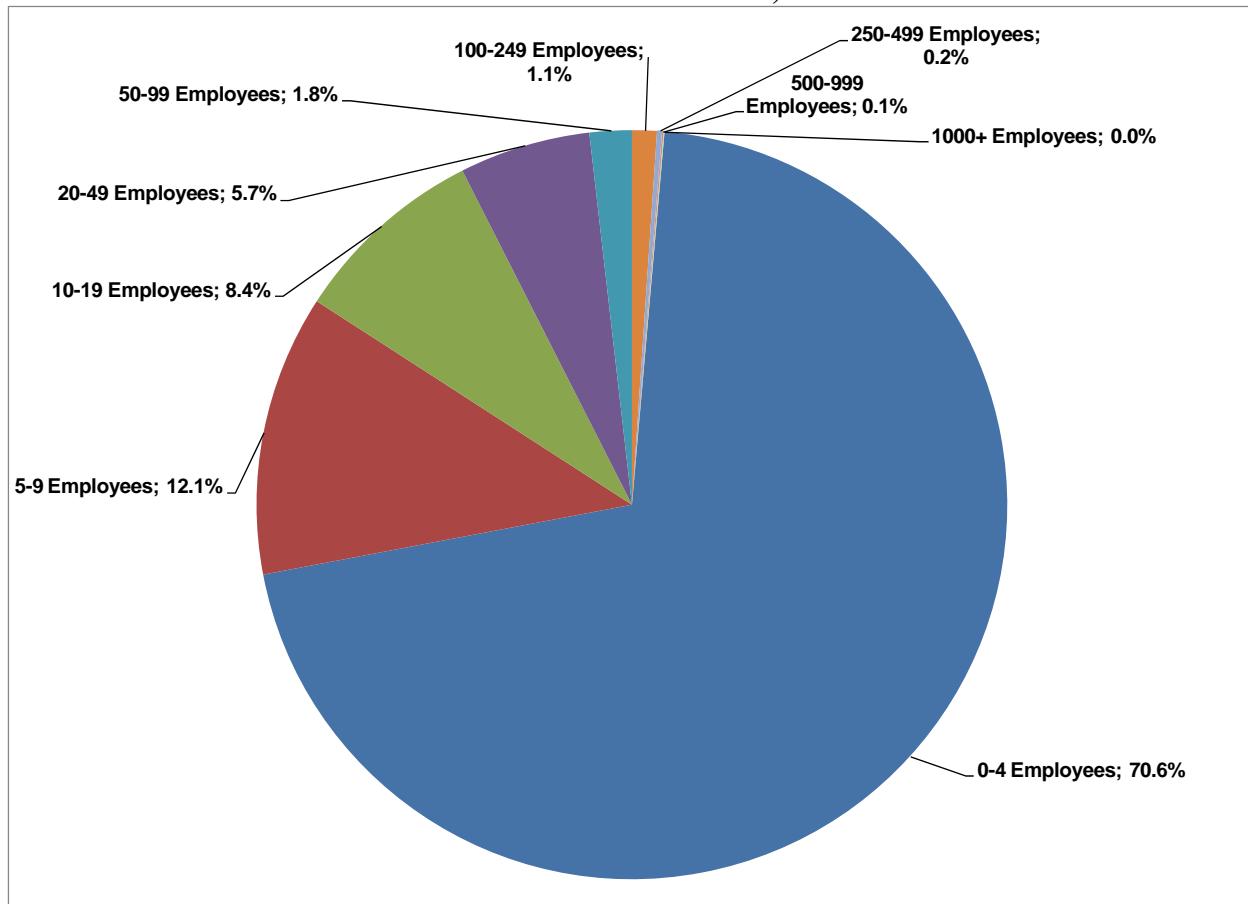


Center for Strategic Economic Research, February 2012
 Data Source: U.S. Census Bureau, Nonemployer Statistics
 Note: Nonemployer statistics reflect self-employed or proprietor employment.

REGIONAL TRENDS

Establishments with less than 20 employees accounted for over 91 percent of the close to 70,000 businesses in the Sacramento Region in 2010. This is a comparable share to the statewide average and most regional economies in the country. Robust growth over the past 10 years in the smallest business segment, those with 0 to 4 employees, pushed the share of establishments in the Region in this size category up by close to 10 percentage points in this period. This dynamic was also seen across the state. The Sacramento Region contains about 5 percent of all business establishments in the state.

SACRAMENTO REGION ESTABLISHMENT SIZE STRUCTURE, 2010



Center for Strategic Economic Research, February 2012

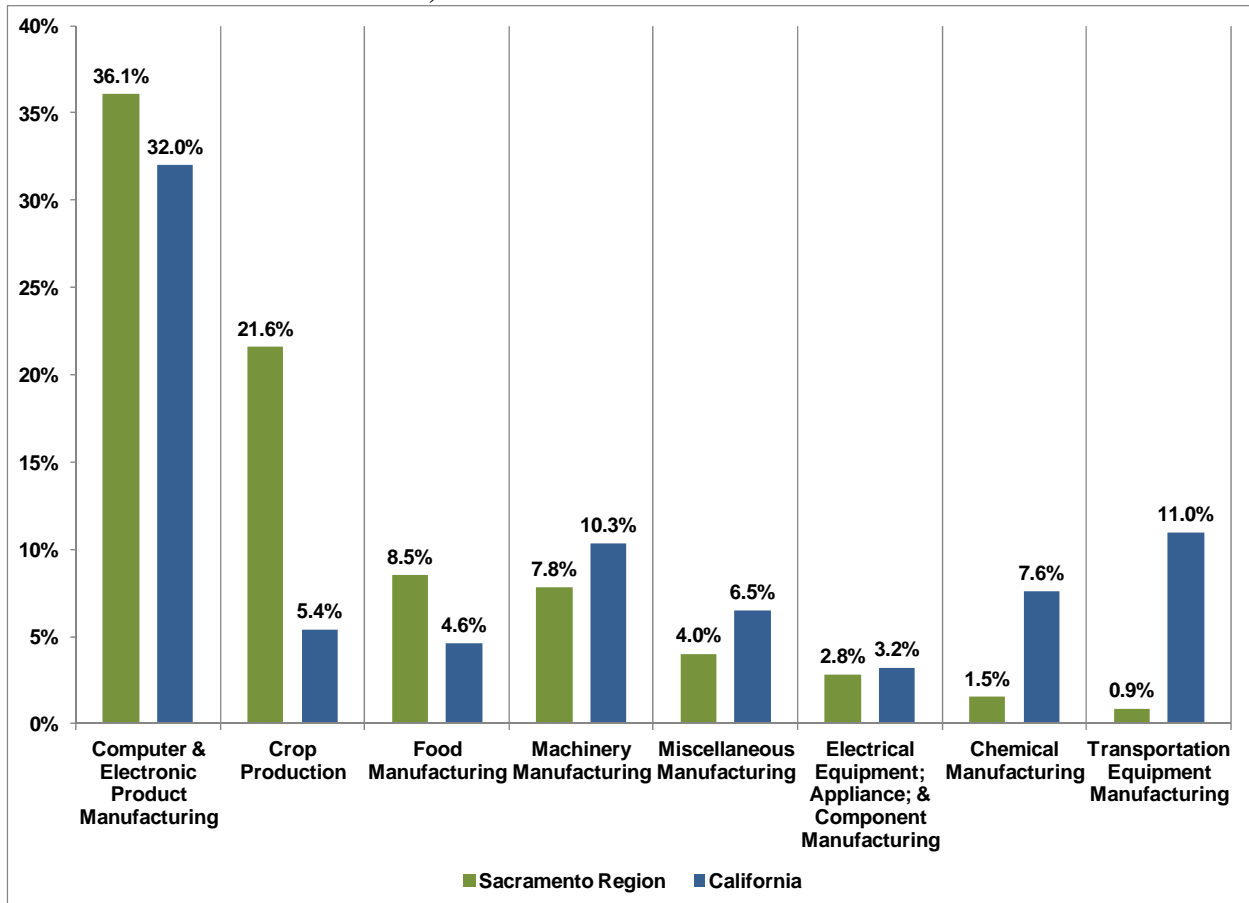
Data Source: CA Employment Development Department

Note: The 1000+ Employees category shows 0% due to rounding—this category contains 22 establishments in the Sacramento Region.

REGIONAL TRENDS

The Sacramento Region's economy creates roughly \$3.7 billion of export activity annually based on 2005 to 2009 measures. Over half of the value in the Region is generated through computer and electronic products and crop production. The Region supports almost 3 percent of the total exports in the state, which is half of the regional share of the overall economy and population primarily due to lower limited diversification of export products and lower export per employee values (\$4,000 compared to \$8,600 statewide).

EXPORT SECTOR DISTRIBUTION, 2005-2009



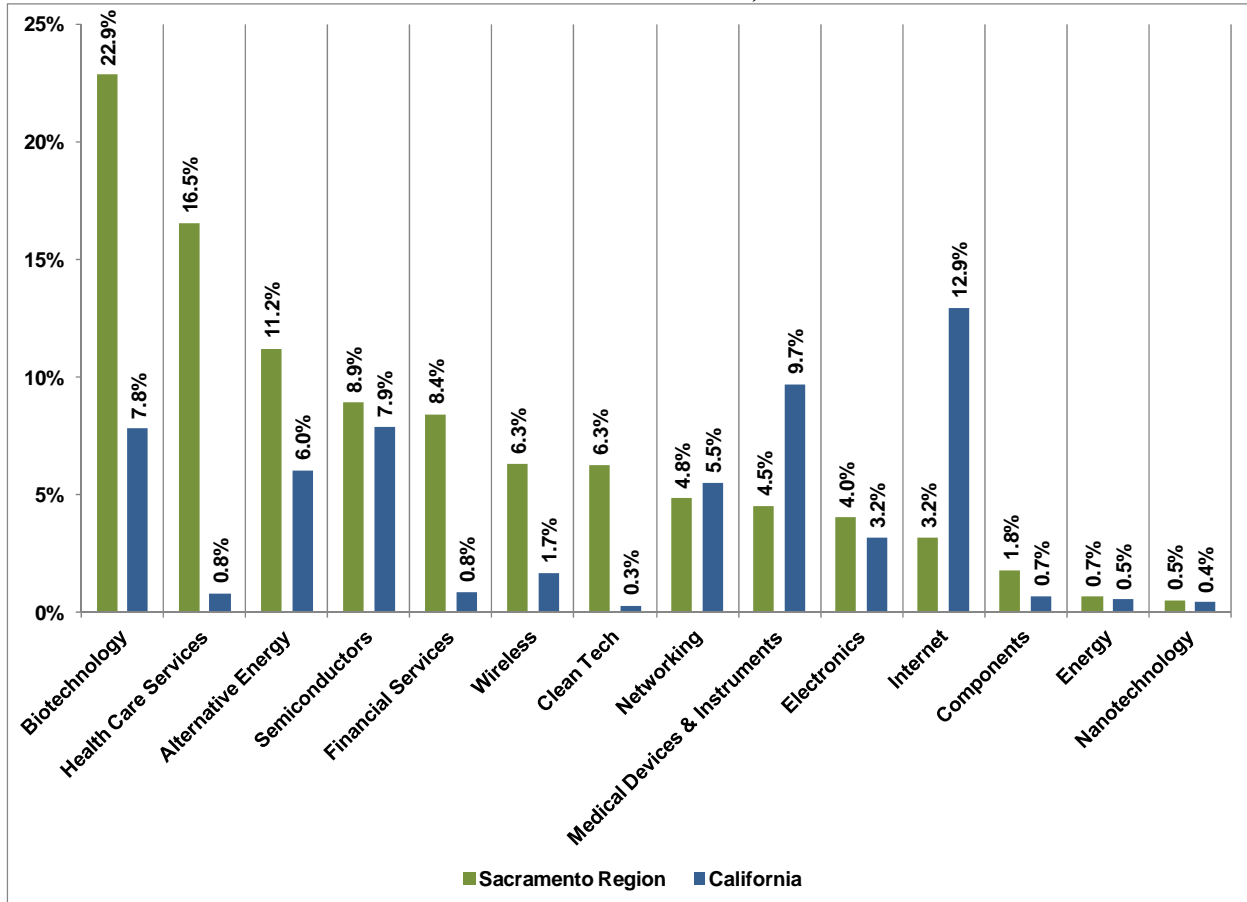
Center for Strategic Economic Research, February 2012

Data Source: U.S. Department of Commerce, International Trade Administration

REGIONAL TRENDS

On an annual average basis between 2005 and 2010, the Sacramento Region received nearly \$56 million of venture capital investment. In this period the Region captured only 0.5 percent of all investment in the state with investment per employee amounts of \$60 compared to \$673 in the state. While venture capital investment in the Region shows relatively weak levels, it reflects innovation capacity in the biotechnology, health care services, and alternative energy fields.

VENTURE CAPITAL INVESTMENT SECTOR DISTRIBUTION, 2005-2010



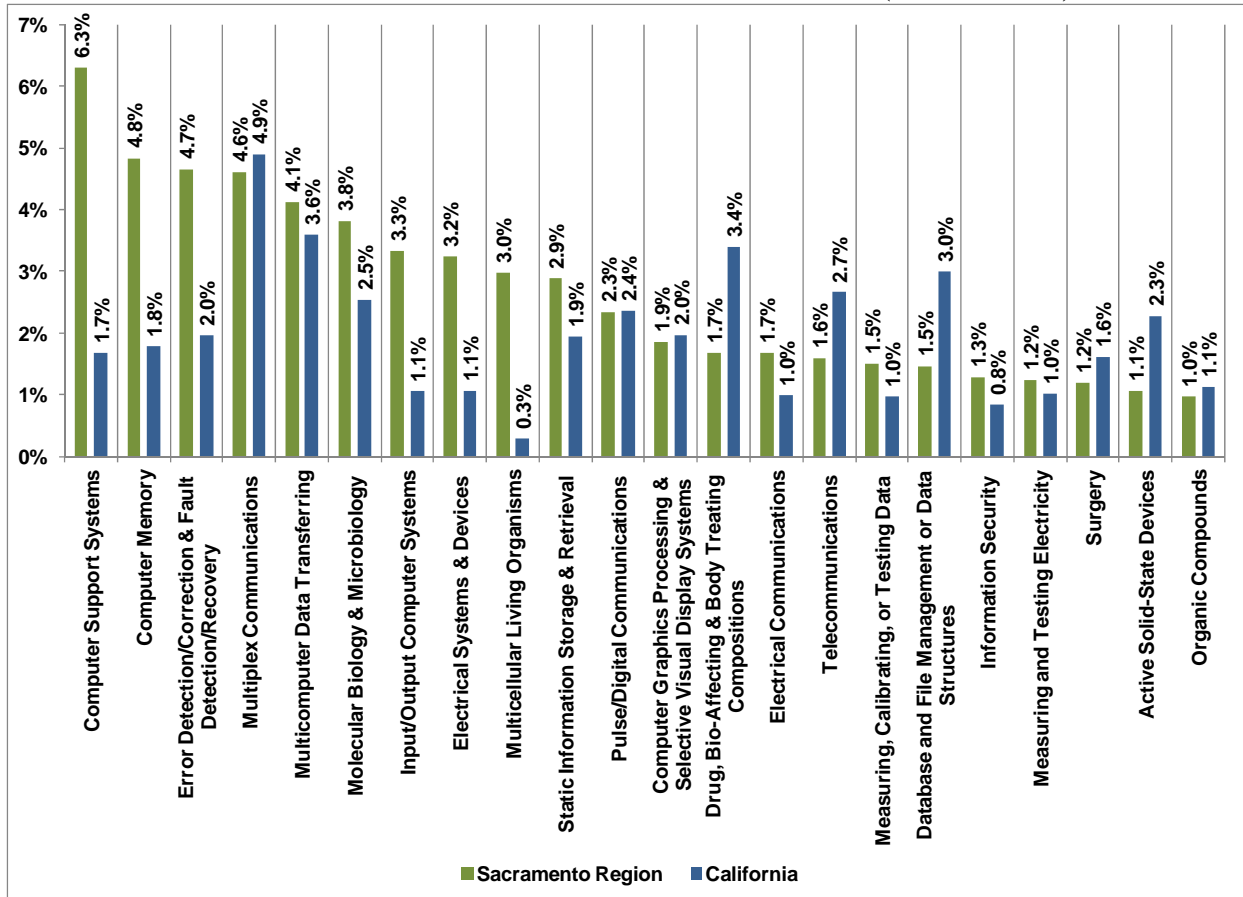
Center for Strategic Economic Research, February 2012
 Data Source: Decision Data Resources, IE360

REGIONAL TRENDS

About 451 patents were issued to assignees in the Sacramento Region on an annual average basis between 2006 and 2010. The Region received about 2 percent of all patents granted in the state in this time period, which is significantly smaller than the regional share of the statewide economy and population. About 5 patents are granted per 10,000 residents in the Sacramento Region compared to almost 15 in the state. Notable shares of regional patents are issued within computer- and communications-related classifications.

PATENTS ISSUED CLASSIFICATION DISTRIBUTION, 2006-2010

SECTORS WITH MORE THAN 20 PATENTS IN SACRAMENTO REGION DISPLAYED (59% OF TOTAL)



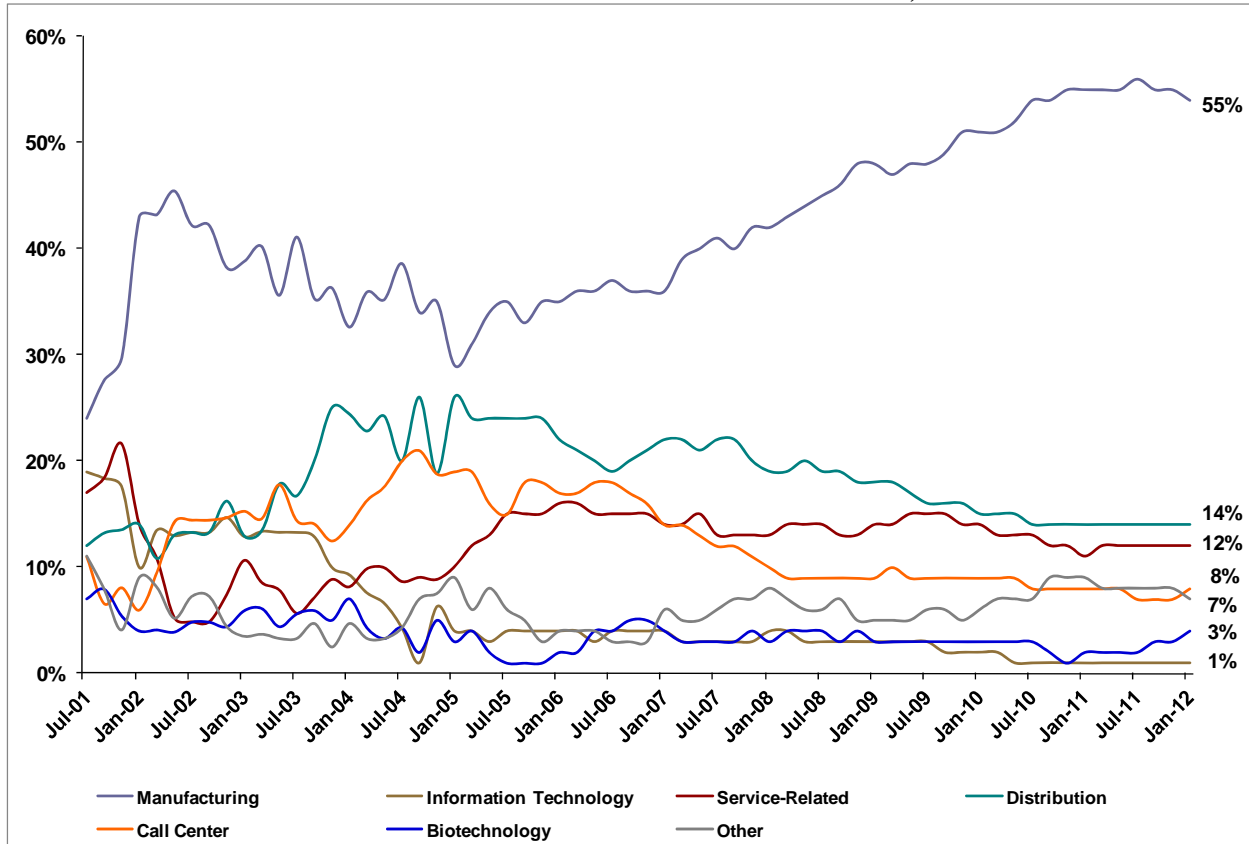
Center for Strategic Economic Research, February 2012

Data Source: U.S. Department of Commerce, Patent and Trademark Office

REGIONAL TRENDS

SACTO business attraction prospect activity has increased substantially in the past few years with companies interested in establishing manufacturing facilities representing over half of all active prospects, particularly in the clean energy technology arena. Over the past five years, the average new company location facilitated by SACTO brought 100 jobs to the Region. These new locations included companies across a wide variety of industries.

SACTO BUSINESS ATTRACTION ACTIVE PROSPECT COMPANY TYPE, AS OF JANUARY 2012



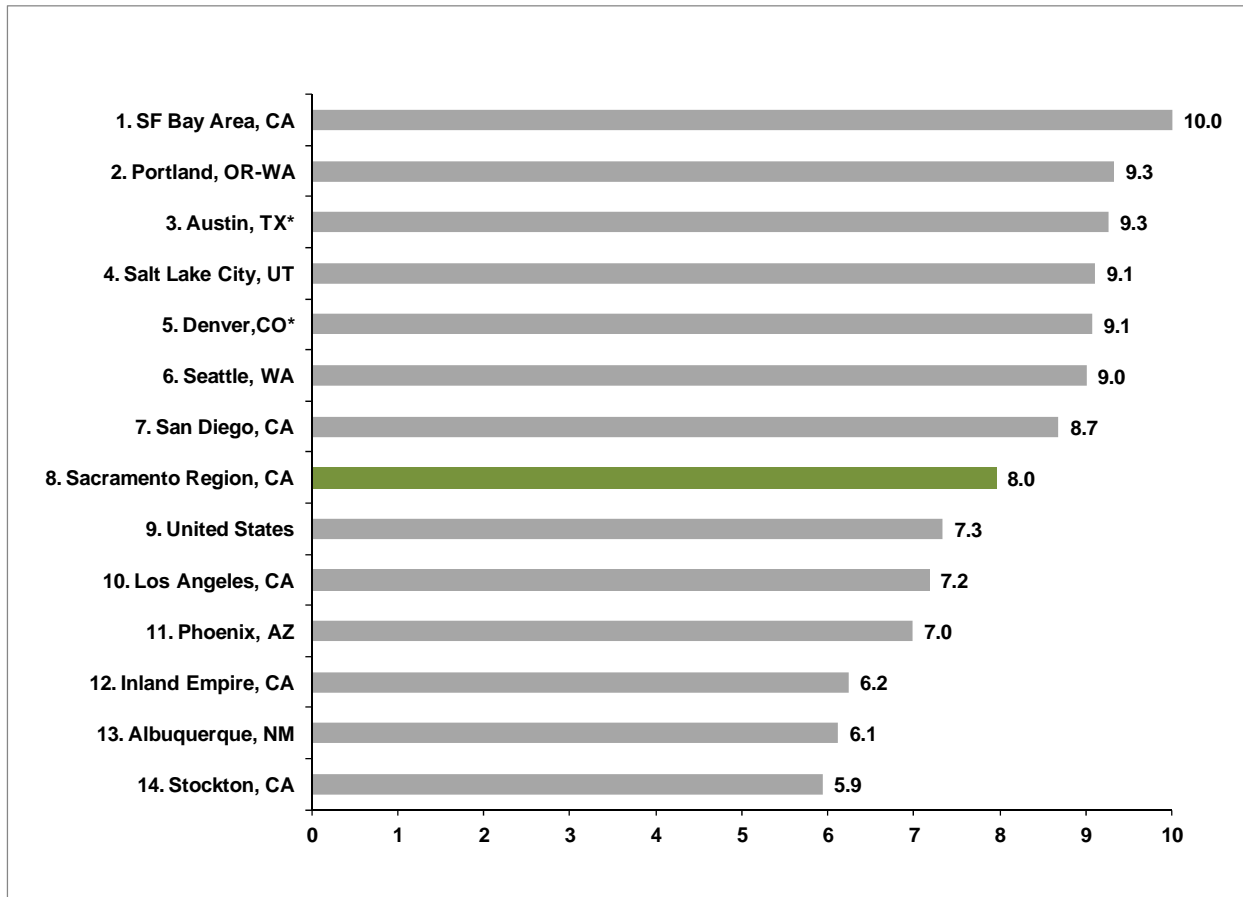
Center for Strategic Economic Research, February 2012

Data Source: Sacramento Area Commerce and Trade Organization

REGIONAL TRENDS

The 2011 *Prosperity Index* showed that the Sacramento Region ranked eighth among its main competitor regions for business location and expansion projects in terms of overall economic prosperity. The Region did well in measures related to workforce and population, but posted relatively weak performance on business climate indicators primarily as a result of the severe recession and lagging recovery. Sacramento posted moderate performance on the Index's quality of life and sustainability components.

2011 PROSPERITY INDEX



Center for Strategic Economic Research, February 2012

*Note: Decimal point difference, masked by rounding in the chart, separate regions with similar scores.

2011 Prosperity Index available at: <http://www.strategiceconomicresearch.org/prosperity-1.html>

Cluster Opportunities

Expanded economic development opportunities can be realized by facilitating growth and development across an entire value chain and related infrastructure and services as an alternative to efforts focused on a specific industry sector. Over the past decade, a large number of regions have adopted this cluster-based concept within their economic development efforts to boost competitiveness and enhance economic vitality. This section discusses cluster-based economic development opportunities within the Sacramento Region based on analyses of economic performance.

The traditional concept of an industry sector groups establishments together based on similarities in the processes used to produce goods and services, currently defined by the North American Industrial Classification System (NAICS) hierarchy.* Clusters, on the other hand, include competing, complementary, and independent establishments across various industry sectors. A cluster grouping represents the entire value chain and beyond, anchored in concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions.† A classic example of the difference between industries and clusters is based on the Boston region—this region has several establishments classified in the Medical Equipment and Supplies Manufacturing industry sector, which are also integrated into an internationally-recognized Life Sciences cluster that includes the full complement of interconnected establishments in other industry sector, cluster organizations, specialized services, and education and research institutions.

By shifting regional economic development discourse to emphasize clusters over industries, a wider array of outcomes can result by drawing attention to an interrelated set of foundational economic factors. In recent years, regions have also realized that cluster connections can develop internally across clusters and externally across geographies. Internal linkages across clusters lend to greater competitiveness in niche activities that build on strengths in two or more existing or emerging clusters. External cluster relationships point to the fact that a fully-integrated cluster is not necessary within a specific region as networks can develop relying on core specialized activities to build the entire cluster across two or more regions. In addition, viable clusters tend to exhibit a set of desirable attributes for economic development purposes. The table below summarizes these key attributes.

DESIRABLE CLUSTER ATTRIBUTES

Economic	Locational
<ul style="list-style-type: none"> • Strong presence of economic base activities • Alignment with workforce structure • Linkages to other clusters • Import substitution capacity • Robust multiplier effects • Productivity integration • Broad future growth potential 	<ul style="list-style-type: none"> • Prominent company visibility • Regional competitive advantage • Presence of supporting attributes • Innovation activity

* To learn more about NAICS, visit: <http://www.census.gov/eos/www/naics/>

† To learn more about the cluster concept visit the following web sites:

- Harvard Institute for Strategy and Competitiveness: <http://www.isc.hbs.edu/>
- Innovation in American Regions: <http://www.statsamerica.org/innovation/index.html>

CLUSTER OPPORTUNITIES

CSER analyzed historical and projected economic performance across nearly 300 detailed economic activities in the Sacramento Region to identify a set of potentially viable cluster opportunities. (The Technical Notes section of this report describes the cluster selection methodology.) In addition to the technical analysis, a handful of other factors were examined to assess the viability of identified clusters including patents granted, venture capital investment, non-employer patterns, global emerging technology trends, national and regional expert insight, and presence of ongoing initiatives. Ultimately, six viable clusters with mutually exclusive activities were identified utilizing this methodology and a seventh was added based on previous research specific to the Sacramento Region. The viable clusters range in size from roughly 3,000 jobs to 99,000 jobs and \$850 million to \$18 billion of output and include between 10 and 32 distinct economic activities. Projections for cluster job growth over the next 10 years range from approximately -3 percent to 25 percent while output projections are between about 21 percent and 36 percent. The following three figures highlight several cluster attributes and define the encompassed activities.

SACRAMENTO REGION VIABLE CLUSTER CHARACTERISTICS

Factor	Agriculture & Food	Advanced Manufacturing	Information & Communications Technology	Life Sciences & Health Services	Clean Energy Technology*	Education & Knowledge Creation	Knowledge-Intensive Business & Financial Services
# Private Sector Activities	21	32	17	21	-	10	18
2010 Employment	37,442	11,409	30,906	98,646	3,015	16,618	69,893
2010 Output (\$M)	3,455	1,740	9,693	8,643	846	1,115	18,277
2010-2020 Projected Employment Growth	1.4%	-3.1%	3.2%	25.1%	-	14.5%	12.1%
2010-2020 Projected Output Growth	24.3%	30.4%	35.9%	28.1%	-	20.8%	36.4%
% High Productivity Activities	47.6%	50.0%	88.2%	28.6%	-	10.0%	94.4%
% High Employment Multiplier Activities	76.2%	71.9%	94.1%	61.9%	-	10.0%	44.4%
% Economic Base Activities	81.0%	100.0%	88.2%	19.0%	-	20.0%	22.2%
Innovation Activity	yes	yes	yes	yes	yes	no	yes
Global Emerging Technology	no	no	yes	yes	yes	no	no
Expert Insight	yes	no	yes	yes	yes	no	yes
Existing Initiatives	yes	no	no	yes	yes	yes	no

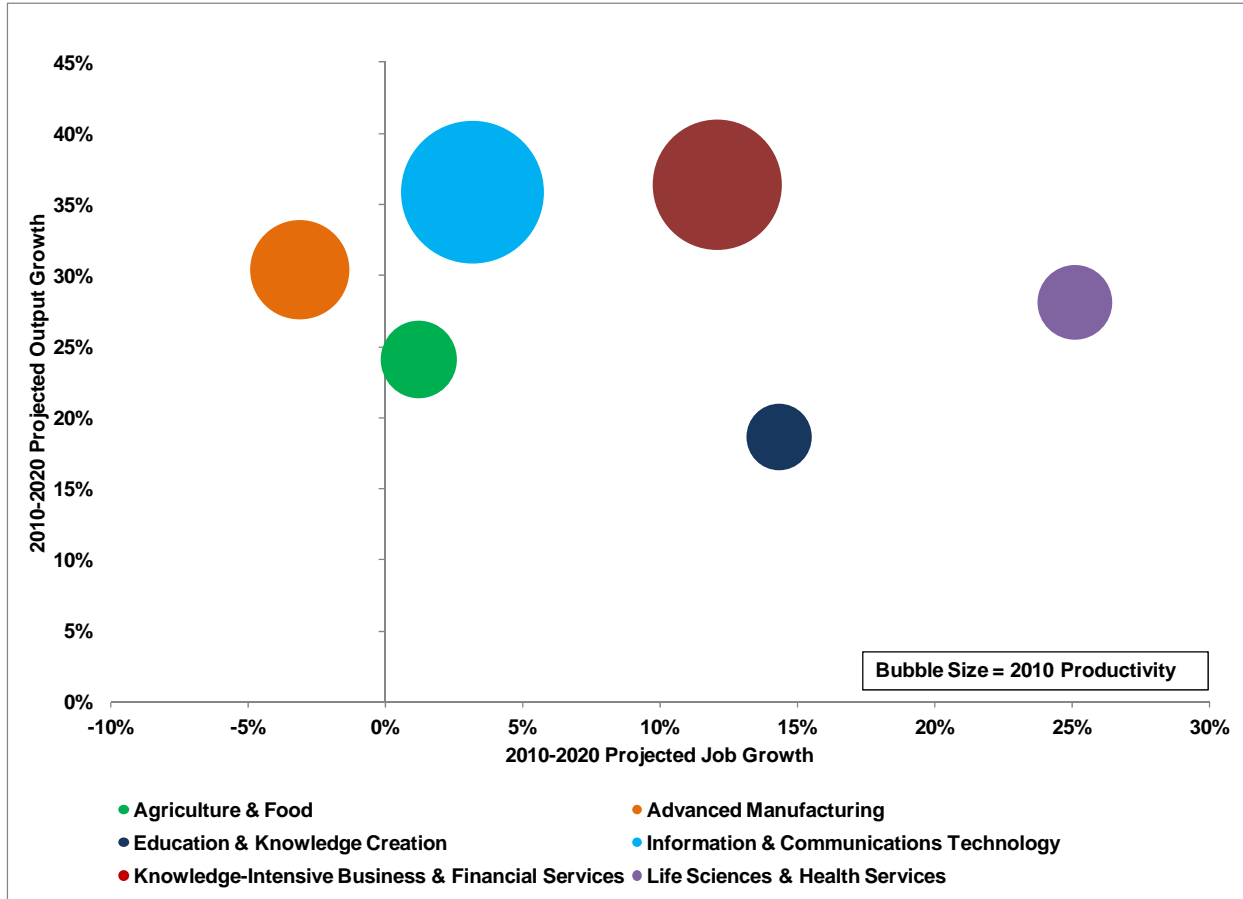
Center for Strategic Economic Research, February 2012

Data Sources: CA Employment Development Department, U.S. Bureau of Economic Analysis, IMPLAN, and Moody's Analytics

*Note: Clean Energy Technology was selected based on previous research specific to the Sacramento Region—due to its characteristics, many of the listed characteristics cannot be estimated in a comparable manner.

CLUSTER OPPORTUNITIES

SACRAMENTO REGION VIABLE CLUSTER PERFORMANCE



Center for Strategic Economic Research, February 2012

Data Sources: CA Employment Development Department, U.S. Bureau of Economic Analysis, and Moody's Analytics

CLUSTER OPPORTUNITIES

SACRAMENTO REGION VIABLE CLUSTER PRIVATE SECTOR ECONOMIC ACTIVITIES

<p>Agriculture & Food</p> <ul style="list-style-type: none"> ✓ Grain and Oilseed Milling—EB, HP, EM ✓ Miscellaneous Nondurable Goods Merchant Wholesalers—EB, HP, EM ✓ Agriculture, Construction, and Mining Machinery Manufacturing—EB, EM ✓ Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing—EB, HP, EM ✓ Grocery and Related Product Merchant Wholesalers—EB, HP, EM ✓ Lawn and Garden Equipment and Supplies Stores—EB ✓ Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers—EB, HP, EM ✓ Beer, Wine, and Liquor Stores ✓ Special Food Services ✓ Animal Slaughtering and Processing—EB, EM ✓ Bakeries and Tortilla Manufacturing—EB, EM ✓ Agriculture (Farms; Fishing, Hunting, etc.; Logging)—EB ✓ Farm Product Raw Material Merchant Wholesalers—EB, HP, EM ✓ Other Food Manufacturing—EB, HP, EM ✓ Specialty Food Stores ✓ Beverage Manufacturing—EB, HP, EM ✓ Fruit and Vegetable Preserving and Specialty Food Manufacturing—EB, EM ✓ Animal Food Manufacturing—EB, HP, EM ✓ Seafood Product Preparation and Packaging—EB, HP, EM ✓ Sugar and Confectionery Product Manufacturing—EB, EM ✓ Dairy Product Manufacturing—EB, EM 	<p>Advanced Manufacturing</p> <ul style="list-style-type: none"> ✓ Railroad Rolling Stock Manufacturing—EB, EM ✓ Aerospace Product and Parts Manufacturing—EB, HP, EM ✓ Boiler, Tank, and Shipping Container Manufacturing—EB, EM ✓ Motor Vehicle Body and Trailer Manufacturing—EB, HP, EM ✓ Other Fabricated Metal Product Manufacturing—EB ✓ Basic Chemical Manufacturing—EB, HP, EM ✓ Commercial and Industrial Machinery and Equipment Rental and Leasing—EB, HP, EM ✓ Paint, Coating, and Adhesive Manufacturing—EB, HP, EM ✓ Architectural and Structural Metals Manufacturing—EB, EM ✓ Foundries—EB, HP, EM ✓ Iron and Steel Mills and Ferroalloy Manufacturing—EB, HP, EM ✓ Chemical and Allied Products Merchant Wholesalers—EB, HP, EM ✓ Steel Product Manufacturing from Purchased Steel—EB, EM ✓ Machinery, Equipment, and Supplies Merchant Wholesalers—EB, HP, EM ✓ Other General Purpose Machinery Manufacturing—EB, EM ✓ Motor Vehicle Parts Manufacturing—EB, HP, EM ✓ Metalworking Machinery Manufacturing—EB ✓ Ship and Boat Building—EB ✓ Machine Shops, Turned Product, and Screw, Nut, and Bolt Manufacturing—EB ✓ Motor Vehicle Manufacturing—EB, HP ✓ Coating, Engraving, Heat Treating, and Allied Activities—EB ✓ Other Transportation Equipment Manufacturing—EB, HP, EM ✓ Engine, Turbine, and Power Transmission Equipment Manufacturing—EB, HP, EM ✓ Hardware Manufacturing—EB ✓ Alumina and Aluminum Production and Processing—EB, EM ✓ Industrial Machinery Manufacturing—EB, HP, EM ✓ Spring and Wire Product Manufacturing—EB ✓ Forging and Stamping—EB, EM ✓ Cutlery and Handtool Manufacturing—EB, EM ✓ Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equipment Manufacturing—EB, EM ✓ Commercial and Service Industry Machinery Manufacturing—EB, HP, EM ✓ Other Chemical Product and Preparation Manufacturing—EB, HP, EM
<p>Information & Communications Technology</p> <ul style="list-style-type: none"> ✓ Wired Telecommunications Carriers—EB, HP, EM ✓ Wireless Telecommunications Carriers (except Satellite)—EB, HP, EM ✓ Data Processing, Hosting, and Related Services—EB, HP, EM ✓ Other Telecommunications—EB, HP, EM ✓ Computer and Peripheral Equipment Manufacturing—EB, HP, EM ✓ Satellite Telecommunications—EB, HP, EM ✓ Wholesale Electronic Markets and Agents and Brokers—EB, HP, EM ✓ Electrical and Electronic Goods Merchant Wholesalers—EB, HP, EM ✓ Software Publishers—EB, HP, EM ✓ Electrical Equipment Manufacturing—EB, EM ✓ Communications Equipment Manufacturing—EB, HP, EM ✓ Other Electrical Equipment and Component Manufacturing—EB, EM ✓ Computer Systems Design and Related Services—HP, EM ✓ Audio and Video Equipment Manufacturing—EB, HP, EM ✓ Semiconductor and Other Electronic Component Manufacturing—EB, HP, EM ✓ Manufacturing and Reproducing Magnetic and Optical Media—EB, HP, EM ✓ Electronic Shopping and Mail-Order Houses—HP 	<p>Life Sciences & Health Services</p> <ul style="list-style-type: none"> ✓ Outpatient Care Centers—EM ✓ General Medical and Surgical Hospitals—EM ✓ Medical and Diagnostic Laboratories—HP, EM ✓ Offices of Dentists—EM ✓ Professional and Commercial Equipment and Supplies Merchant Wholesalers—EB, HP, EM ✓ Specialty (except Psychiatric and Substance Abuse) Hospitals—EM ✓ Other Ambulatory Health Care Services—EM ✓ Nursing Care Facilities ✓ Offices of Other Health Practitioners ✓ Individual and Family Services—EM ✓ Home Health Care Services ✓ Community Care Facilities for the Elderly ✓ Navigational, Measuring, Electromedical, and Control Instruments Manufacturing—EB, HP, EM ✓ Health and Personal Care Stores ✓ Vocational Rehabilitation Services ✓ Pharmaceutical and Medicine Manufacturing—EB, HP, EM ✓ Medical Equipment and Supplies Manufacturing—EB, HP, EM ✓ Other Residential Care Facilities ✓ Offices of Physicians—HP, EM ✓ Residential Mental Retardation, Mental Health and Substance Abuse Facilities ✓ Psychiatric and Substance Abuse Hospitals—EM
<p>Education & Knowledge Creation</p> <ul style="list-style-type: none"> ✓ Educational Support Services ✓ Junior Colleges ✓ Newspaper, Periodical, Book, and Directory Publishers—EB, HP, EM ✓ Technical and Trade Schools ✓ Elementary and Secondary Schools ✓ Other Schools and Instruction ✓ Colleges, Universities, and Professional Schools ✓ Printing and Related Support Activities—EB ✓ Other Information Services ✓ Business Schools and Computer and Management Training 	<p>Knowledge-Intensive Business & Financial Services</p> <ul style="list-style-type: none"> ✓ Scientific Research and Development Services—EB, HP, EM ✓ Management, Scientific, and Technical Consulting Services—HP ✓ Activities Related to Real Estate—HP ✓ Other Financial Investment Activities—HP ✓ Architectural, Engineering, and Related Services—EB, HP, EM ✓ Other Investment Pools and Funds—HP, EM ✓ Business, Professional, Labor, Political, and Similar Organizations—HP ✓ Securities and Commodity Contracts Intermediation and Brokerage—HP ✓ Monetary Authorities-Central Bank—HP, EM ✓ Activities Related to Credit Intermediation—HP, EM ✓ Accounting, Tax Preparation, Bookkeeping, and Payroll Services—EB, HP ✓ Legal Services—HP ✓ Management of Companies and Enterprises—EB, HP, EM ✓ Nondepository Credit Intermediation—HP, EM ✓ Insurance and Employee Benefit Funds—HP, EM ✓ Advertising, Public Relations, and Related Services—HP ✓ Securities and Commodity Exchanges—HP ✓ Specialized Design Services

Center for Strategic Economic Research, February 2012

Note: EB = economic base activity, HP = high productivity; output per employee above regional average, and EM = high employment multiplier; above median regional economic activities.

The Agriculture & Food cluster contains 21 separate economic activities supporting over 37,000 payroll jobs and \$3.5 billion of output. Although job growth between 2010 and 2020 is expected to be slow (about 1 percent), output growth is projected to be close to the regional average of 24 percent. Around 48 percent of the included economic activities support productivity levels above the regional average. Eighty-one percent of the cluster activities can be considered economic base, which supports a high share of employment multiplier effects (ability to generate additional jobs through demand on linked suppliers of goods and services and employee spending) above the regional median (over 76 percent). In addition to payroll jobs, there are more than 2,500 nonemployers (self-employed / proprietors) in the cluster, which have grown at a rate of 17 percent in the past five years. A notable amount of innovation activity has taken place in this cluster over the past five years as reflected in 10 venture capital deals totaling roughly \$97 million as well as 36 patents issued. National, regional, and local experts in the regional economics, business finance, and economic development fields identified activities within this cluster among those presenting the most potential for specialization and future growth and development in the Sacramento Region. SACOG's Rural-Urban Connections Strategy (RUCS) has brought regional attention to this cluster and has identified several related economic opportunities.

Advanced Manufacturing encompasses 32 cluster activities, all of which can be considered economic base, accounting for approximately 11,000 jobs and \$1.7 billion of output in the regional economy. Another approximately 400 nonemployers are also part of this cluster. As a result of expanding productivity across most manufacturing activities, particularly within this cluster, 10-year job growth projections show losses at a rate of around 3 percent while output is expected to expand by about 30 percent (somewhat higher than the regional average). As of 2010, half of the included activities supported output per employee levels above the regional average and 72 percent generated relatively strong employment multiplier effects. Forty-two patents were granted in fields related to this cluster in the past five years.

The Information & Communications Technology cluster includes 17 economic activities with 2010 employment estimates at close to 31,000 and output of \$9.7 billion. Although there are a considerable number of nonemployers that can be considered part of this cluster (around 3,400), the number has shrunk over the past five years. Slow job growth is expected in this cluster over the next 10 years (around 3 percent), but output growth is projected at nearly 36 percent due to productivity dynamics. In fact, over 88 percent of the activities included in this sector exceed regional average productivity levels. About 88 percent of the activities are part of the Region's economic base with 94 percent supporting strong employment multiplier effects (the highest share across the identified clusters). Information & Communications Technology represents a promising innovation field for the Sacramento Region with 29 venture capital deals between 2005 and 2010 totaling \$94 million. Several activities within this cluster relate to areas identified in published studies as important emerging technologies in the world.[‡] Experts also identified components of this cluster as offering promising economic development potential in the Sacramento Region.

[‡] See the MIT Technology Review for one prominent source of information on this topic: <http://www.technologyreview.com/>

In the Sacramento Region, the Life Sciences & Health Services cluster is dominated by activities related to health care. In fact, 17 of the 21 included economic activities are health care-related, capturing approximately 94 percent of the roughly 99,000 cluster jobs and 83 percent of the \$8.6 billion of the total cluster output. These activities also influence the anticipated 10-year growth levels with job growth expected to exceed the regional average at 25 percent and output growth outlooks close to the regional average at 28 percent. This health care weighting also puts the shares of high productivity activities and economic base activities at lower levels than other sectors (about 29 percent and 19 percent, respectively). However, almost 62 percent of the cluster activities support employment multiplier effects above the regional median. The nonemployer components of this cluster have grown by roughly 8 percent over the past five years reaching close to 6,500. Life sciences activities have supported the most innovation activity reflecting 6 venture capital deals in excess of \$348 million between 2005 and 2010 and 61 patents issued over the same time period. Both global emerging technology trends and expert insight point to economic development potential in this cluster within the Sacramento Region supported by ongoing initiatives such as SARTA's MedStart program.

Clean Energy Technology is listed as a viable cluster as a result of ongoing regional initiatives focused specifically on this cluster including the Green Capital Alliance, Greenwise, and SARTA's CleanStart. Due to the fact that core economic activities making up this cluster are embedded within various standard industry sectors, its economic dynamics cannot be analyzed like the other clusters (for instance, solar cells are included in the Semiconductor and Other Electronic Component Manufacturing sector along with hundreds of other unrelated components). The 2011 Sacramento Region Clean Energy Technology Cluster Characteristics and Competitive Analysis report utilized establishment-level analysis to estimate the size of the cluster with activities broken into four segments including clean energy, energy efficiency, clean transportation, and green building.[§] This report provided estimates as of the beginning of 2010, which showed roughly 200 cluster establishments supporting over 3,000 jobs and generating approximately \$846 million of sales. The Clean Energy Technology cluster is another global emerging technology area where experts see strength in the Sacramento Region both in terms of existing companies and innovation activity.

The Education & Knowledge Creation cluster includes 10 private sector activities that support nearly 17,000 jobs on payrolls and \$1.1 billion of output in the regional economy. It is important to note that the education segment of this cluster is also tied to a significant amount of other activities within the public sector (i.e. K-12, community colleges, CSU, and UC). Focusing solely on the private sector, employment growth projections for the 2010 to 2020 period are expected to come in close to the regional average at nearly 15 percent with projected output growth under the regional average at about 21 percent. Only a minimal share of activities can be considered high productivity, fall within the economic base, or generate strong employment multiplier effects. There are, however, regional initiatives forming to build the private sector higher education capacity in the Region, specifically reflected in SACTO's five-year strategic plan.

Knowledge-Intensive Business & Financial Services contains a host of high-value economic activities. The 18 included activities support the highest output level among the identified

[§] Cluster report available at: <http://www.strategiceconomicresearch.org/AboutUs/cetcluster.pdf>

CLUSTER OPPORTUNITIES

clusters at nearly \$18.3 billion with almost 70,000 jobs on payrolls. Over 94 percent of the cluster activities have output per employee levels above the regional average, contributing to the high projected output growth of 36 percent over the next 10 years with much slower employment growth slightly below the regional average at 12 percent. Despite the value created in the cluster, only 22 percent of the activities are within the economic base and around 44 percent generate employment multiplier effects above the regional median. There is some innovation activity in this cluster primarily reflected in various patents and some experts view certain elements of this cluster as strong economic development opportunities.

It is important to note that, although the groupings of economic activities in the clusters are mutually exclusive, linkages definitely exist across a few of the clusters, particularly in innovation and research activities. For example, the Agriculture & Food and Life Sciences & Health Services clusters are connected through the applications of biotechnology in agriculture and Information & Communications Technology serves both the Life Sciences & Health Services and Clean Energy Technology clusters through innovations in health information and smart grid technologies. As such, the generation of regional economic development strategies in these areas must consider opportunities both within and across clusters.

While the Education & Knowledge Creation and Knowledge-Intensive Business & Financial Services clusters reflect a set of linked economic activities that present opportunities for focused growth and development, they also act as core economic foundations that are critical to support growth in a wide range of other clusters and industry sectors. Therefore, economic development strategies related to these areas should differ significantly from other identified viable clusters by considering their broader role in economic vitality similar to other foundational elements such as infrastructure, real estate, and capital.

Economic Development Ecosystem

The economic development ecosystem in a regional economy consists of both the set of critical economic foundations necessary to support overall economic vitality as well as the landscape of regional organizations and associated programs and services that help facilitate the creation of jobs, investment, and wealth. This section expands on these two topics and provides an assessment of the ecosystem in the Sacramento Region. Areas identified as impediments or gaps in this section should be considered as critical aspects to address in the creation of regional economic development strategies.

Economic Foundations

There are a handful of commonly-recognized factors that point to a region’s potential for growth and development across nearly all industry sectors and clusters. The table below lists and summarizes the general perceptions of these factors within the Sacramento Region based on several years of input from national, statewide, and regional contacts in the economic development, research, site selection, and business communities.

PERCEPTIONS OF SACRAMENTO REGION ECONOMIC FOUNDATIONS

<i>Economic Foundations</i>	<i>General Perceptions</i>		
	<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>
Suitability of commercial real estate		X	
Suitability of infrastructure	X		
Workforce size and quality		X	
Consumer base size and quality		X	
Cost of doing business			X
Business climate			X
Access to domestic markets	X		
Quality of life	X		
Entrepreneurial environment			X
Foreign market interactions			X
Technology and innovation environment			X
Access to capital			X
Higher education infrastructure		X	
Access to business services		X	

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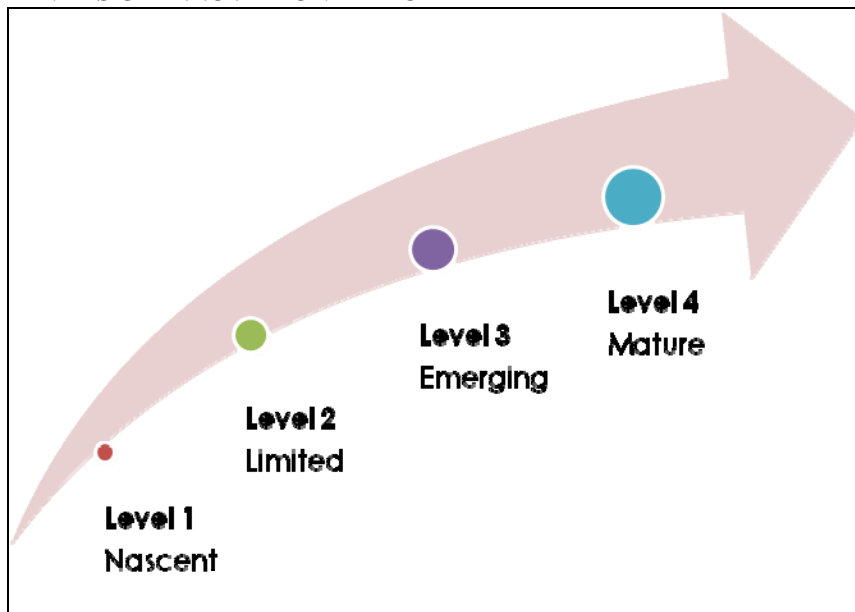
Only three of the Sacramento Region’s economic foundations support generally positive perceptions including the suitability of infrastructure, access to domestic markets, and quality of life. Another five areas fall within neutral territory. Input on the suitability of commercial real estate suggests this falls out of positive territory due to the limited availability of certain types of specialized space such as wet labs. Workforce size and quality is, for the most part, viewed as one of the Sacramento Region’s strengths, but certain industry sectors report difficulties in finding qualified labor in some technical areas such as engineering. Consumer base size and quality falls into neutral territory as a result of income levels not supporting some types of higher end retail establishments. The public sector higher education infrastructure has been viewed as

positive up until the effects of recent budget cuts have become much more visible, but the primary reason this category falls into neutral perceptions is the relatively limited amount of private higher education options in the Region. In terms of access to business services, expert insight acknowledges the availability of nearly all basic services, but notes limits for some specialized services leading businesses to acquire these services outside the Region.

The negative category holds six of the key economic foundations. The cost of doing business relates primarily to broader issues of operating within the state of California. Business climate began to move into increasingly negative perceptions with the state budget problems and severe regional recession. Input on foreign market interactions show negative perceptions regarding the relatively low level of inbound foreign investment and export activity outside of agriculture. The final three negative factors reflect longer-term perceptions of the Sacramento Region in the entrepreneurship and innovation arenas—input typically reveals a viewpoint that the Region does not support or facilitate an innovative entrepreneurial environment due to its lack of critical factors such as access to early- and mid-stage capital, technology transfer capacity, and incubation space.

Further illustrating regional innovation issues, the 2012 *Sacramento Region Innovation Score Card* conducted by GROW California for the Next Economy project gave the Region an innovation readiness score of 65, which puts it between the nascent and limited levels on the innovation maturity model shown below.**

LEVELS OF INNOVATION MATURITY



GROW California, February 2012

** To learn more about the Innovation Score Card report contact the Sacramento Area Regional Technology Alliance (SARTA): <http://www.sarta.org>

The study identified four key impediments inhibiting the level of innovation maturity in the Sacramento Region:

1. Lack of early-stage venture capital—nascent level
This type of capital is needed for companies to launch, build a management team, and meet early business milestones.
2. Unfulfilled commercialization and technology transfer capability—nascent level
This involves the transfer of rights to commercialize new discoveries and innovations from research and development within the Region.
3. Lack of venture-backed executives and serial entrepreneurs—limited level
A quality management team with a proven track record is ranked as the most important factor by venture capitalists in assessing opportunities for investment.
4. Insufficient skilled technical workforce—limited level
This includes technical skills among high- and middle-skilled workers across various disciplines in the technology industry.

Economic Development Programs and Services

Across the nation, regional economic development programs generally fall within six main categories. Business attraction and marketing programs seek to facilitate new economic stimulation and diversification of the regional economy. Recognizing that research has established that between 65 percent and 80 percent of new jobs are created by existing businesses, business retention and expansion programs focus on providing support to keep and grow companies already located in the region. Research has also shown that businesses with less than 20 employees are the primary source of job creation and innovation, leading to programs focused on entrepreneurial and small business development. Business finance programs provide financing outside the standard private sector model which provides additional means to allow businesses to start, expand, and remain competitive. Technology development programs focus on supporting business creation and expansion of existing businesses through development and deployment of new products and services. A quality workforce is one of the most critical drivers of regional economic competitiveness and workforce development programs concentrate on creating a workforce aligned with the occupational and skill demands of businesses in the regional economy. The table on the following page outlines the standard programs and services under each of the six categories along with the typically-desired outcomes based on national best practices.

CATALOG OF STANDARD REGIONAL ECONOMIC DEVELOPMENT PROGRAMS

<p>Business Attraction and Marketing</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Print and electronic place marketing ▪ Print and electronic targeted industry marketing ▪ Print and electronic tourism marketing ▪ Business prospecting and outreach ▪ Trade shows, events, and industry conferences ▪ Site selection facilitation ▪ Foreign trade and investment missions ▪ Business incentives provision and marketing <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ Increased visibility and positive perceptions of place ✓ Business prospect inquiries and site visits ✓ New business locations and investment ✓ <i>New jobs and investment</i> 	<p>Business Finance</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Working capital financing ▪ Fixed asset and construction financing ▪ Gap financing ▪ Small business financing ▪ Microenterprise lending ▪ Export financing ▪ Indirect financing ▪ Equity and risk capital ▪ Revolving loan funds <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ Access to capital through all stages of the life cycle ✓ Increased flow of investments ✓ Improved lender-borrower connections ✓ <i>Retained and new jobs and investment</i>
<p>Business Retention and Expansion</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Print and electronic program marketing ▪ Early warning customer relationship management ▪ Targeted business outreach and follow-up ▪ Open business feedback system ▪ Business assistance service coordination ▪ Business climate issue identification and response ▪ Business advocacy and policy development ▪ Business incentives provision and marketing <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ Retention of high value companies ✓ Expanded business operations and new investment ✓ Business climate improvement ✓ <i>Retained and new jobs and investment</i> 	<p>Technology Development</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Business network coordination ▪ Technology transfer and commercialization ▪ Equity and risk capital coordination ▪ Specialized business space ▪ Technology deployment assistance ▪ Specialized talent attraction and retention campaigns ▪ Entrepreneurial training and technical assistance <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ New technology commercialization and adoption ✓ Company movement through life cycle ✓ Clustering of companies and support services ✓ <i>New jobs and investment</i>
<p>Entrepreneurial and Small Business Development</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Print and electronic resource marketing ▪ Basic business training and technical assistance ▪ Regulatory compliance assistance ▪ Government procurement assistance ▪ Export and import assistance ▪ Professional network coordination ▪ Business incubation and accelerator space ▪ Financial assistance facilitation <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ New business start-ups ✓ Small business survival rate improvement ✓ Small business retention and accelerated growth ✓ <i>New jobs and investment</i> 	<p>Workforce Development</p> <p><u>Standard Programs / Services</u></p> <ul style="list-style-type: none"> ▪ Print and electronic resource marketing ▪ Talent attraction and retention campaigns ▪ Education and training alignment with business needs ▪ Business hiring and training assistance ▪ Business engagement coordination ▪ Ancillary service coordination ▪ International labor pool support ▪ Layoff aversion <p><u>Desired Outcomes</u></p> <ul style="list-style-type: none"> ✓ Business utilization of local workforce ✓ Improved high skilled workforce retention ✓ In-migration of high skilled workforce ✓ <i>Retained and new talent and income</i>

Center for Strategic Economic Research, February 2012

CSER's evaluation of regional organizations within the Sacramento Region (supplemented by feedback from local economic development professionals) revealed that most of the standard set of economic development programs and services listed in the table on the previous page are being provided to some degree. (The Technical Notes section of the report provides further details on the ecosystem evaluation process.) There are, however, two primary issues that emerged across the full spectrum of economic development programs. First, with the exception of a few distinct programs, the availability of business finance provided directly through regional organizations is very limited across the board. As a result, the desired outcomes in this area are not being generated within the Region besides what is happening through the standard private sector offerings. Business finance is a topic that local economic development professionals raised as a critical concern in terms of access, availability, and knowledge of existing opportunities. Second, there are program gaps in the technology development arena particularly related to specialized business space (e.g. web lab; prototype, testing, and demonstration; and contract manufacturing), technology deployment assistance, specialized talent attraction and retention campaigns, and technology transfer and commercialization. This further demonstrates the GROW California conclusions that the Region is at the lower level of the standard innovation maturity model as well as the restricted positive economic development outcomes related to these programs. These two primary issues also relate to two of the economic foundations which fall under the negative perceptions category including access to capital and the technology and innovation environment.

A few other areas were identified as secondary issues. Under workforce development, there are no active broad regional talent attraction and retention campaigns in the Sacramento Region, which could be impacting the Region's ability to foster and keep young professionals and other targeted groups or skill sets in the community. Local economic development professionals suggested that a campaign of this nature would be a highly beneficial addition to the set of regional programs and services. Additionally, there is currently limited business incubation space for entrepreneurs and small businesses in the Region to help these types of establishments mature and grow into successful and sustainable companies through the provision of low-cost start-up space with integrated support services. Similarly, there are no formal business accelerator programs in the Region that rely on concentrated mentor and peer exposure to help entrepreneurs build strong ideas and companies. Further, the existing regional business retention and expansion program structure is limited geographically and defined individually by paying participants (e.g. local jurisdictions, partners, and sponsors)—there is an opportunity to further develop a regional program since the existing structure was not necessarily designed to fully incorporate regional early warning customer relationship management, targeted business outreach and follow-up, open business feedback systems, and business assistance service coordination. Local economic development professionals emphasized the need for continued and expanded regional efforts in the business retention and expansion arena due to the fact the efforts at the local level could continue to suffer as many jurisdictions face declining resources.

Another set of items were classified as tertiary issues in the ecosystem evaluation. Tourism marketing is driven by specific areas in the Sacramento Region and there is no coordinated regional effort. In addition, ancillary service coordination (e.g. transportation, child care, and telecommuting) in the workforce development space is limited geographically. Furthermore, it is unclear whether the regional organizations are generating the typically-desired outcomes

associated with the standard set of economic development programs and services targeting entrepreneurship and small business development. The fact that the entrepreneurial environment was one of the economic foundations garnering negative perceptions suggests that these programs may not be generating the level of anticipated outcomes.

Foreign market interactions is another economic foundation that generally is perceived in a negative manner within the Sacramento Region and is also of growing importance for regional economic vitality. While there was no separate classification of foreign programs, services that are linked to this concept fall primarily under three areas. First, foreign trade and investment missions are included under business attraction and marketing, which the evaluation identified as an organizational strength in the Sacramento Region. Second, export and import assistance falls under entrepreneurial and small business development—as indicated above, it is not clear whether desired outcomes are being generated in this program area. Third, export financing is one of the identified areas under business finance, a program area that was noted above as a critical gap.

Four other broader concerns were also noted in compiling the results of the ecosystem analysis:

1. Many economic development outcomes are not documented or collected in a meaningful way to demonstrate the value or logic of the programs and services provided.
2. There is limited business and organizational knowledge of the full range of available programs and services and direct point of contact for those offerings—feedback from local economic development professionals suggested that this is an important issue to address.
3. Resource constraints are likely affecting a number of regional organizations' ability to serve the full geographic region or provide a substantial level of effort.
4. There is uneven coordination with local jurisdictions and local-serving organizations among the regional economic development organizations—local economic development professionals indicated that there is definitely an opportunity to obtain sustained buy-in and support for regional efforts through enhanced coordination and open discussions of the benefits and outcomes generated by the programs at both the regional and local levels.

In general, local economic development professional agreed with the findings of the evaluation of the programs and services provided by regional organizations. In addition to the priority areas mentioned above, this group stressed the need to improve the general innovation environment in the Sacramento Region. They also identified one regional offering that was not revealed in the economic development ecosystem analysis—the need for a regional comprehensive and accessible database of available properties with advanced search features and reporting. This can be considered part of the site selection facilitation component under business attraction and marketing and is often built into the web site of the primary facilitating organization.

Technical Notes

The data, analysis, and figures presented throughout this research report were developed using the cited sources. A description of the methodology CSER employed in producing the analysis in the Cluster Opportunities and Economic Development Ecosystem sections is provided below.

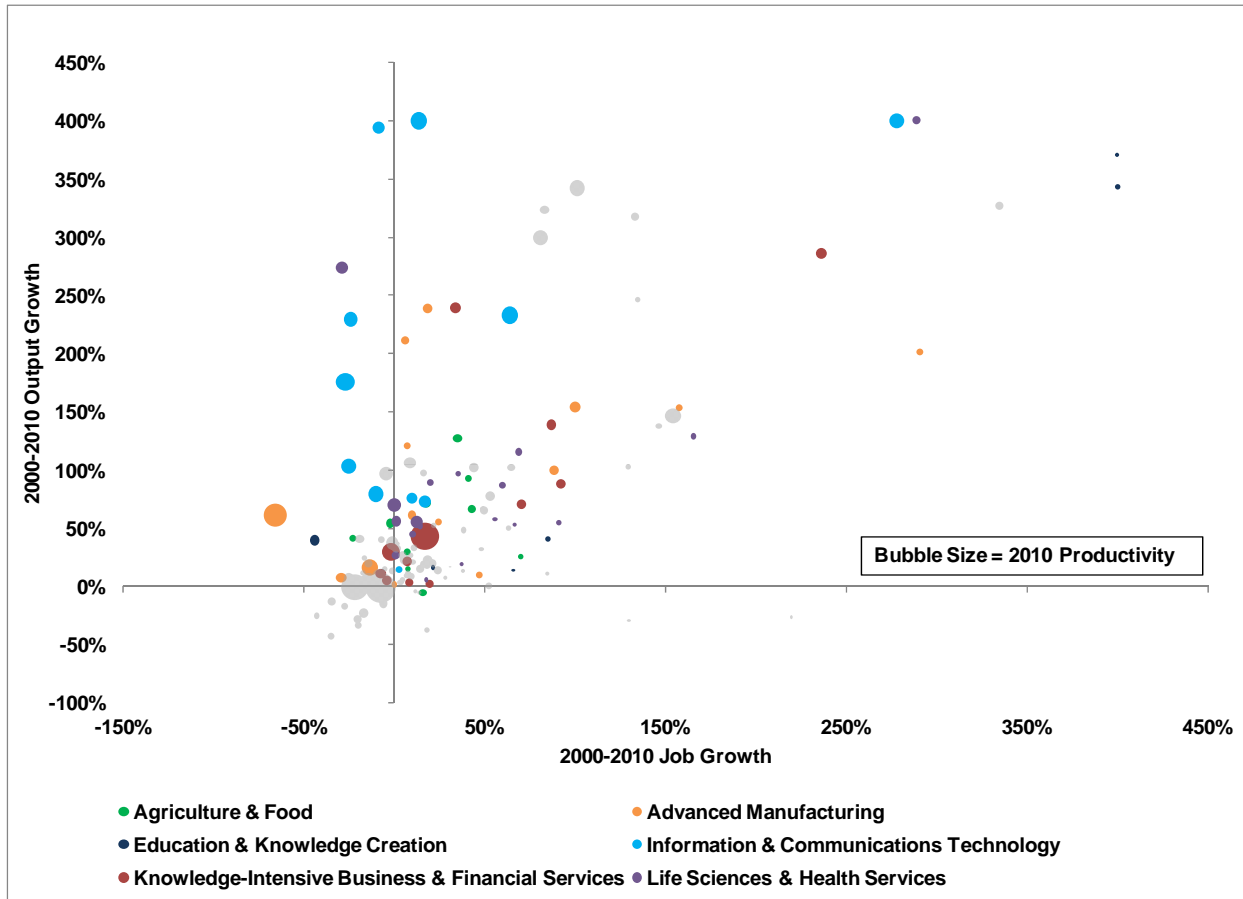
Cluster Opportunities

Viable clusters and related activities were originally selected through analysis based on CSER's Economic Performance Index (EPI). The EPI approach measured 283 detailed economic activities (4-digit NAICS) in the six-county Sacramento Region across 14 economic factors:

1. Share of total employment, 2010
2. Shift in share of total employment, 2000-2010
3. Employment specialization (regional share of total employment/statewide share of total employment), 2010
4. Change in employment specialization, 2000-2010
5. Employment growth rate, 2000-2010
6. Projected employment growth rate, 2010-2020
7. Share of total output (market value of goods and services), 2010
8. Shift in share of total output, 2000-2010
9. Output specialization, 2010
10. Change in output specialization, 2000-2010
11. Output growth rate, 2000-2010
12. Projected output growth rate, 2010-2020
13. Productivity (output/employee), 2010
14. Change in productivity, 2000-2010

Activities within the top two quartiles of economic performance were examined for potential cluster groupings based on published studies and professional experience. The chart on the next page depicts the initial identification and grouping of clusters among the top performing activities. After identifying top-performing cluster groupings, activities among the two lower quartiles were pulled into the selected clusters, as appropriate.

SACRAMENTO REGION ECONOMIC PERFORMANCE INDEX TOP PERFORMING ACTIVITIES



Center for Strategic Economic Research, February 2012

Data Sources: CA Employment Development Department, U.S. Bureau of Economic Analysis, and Moody's Analytics

Economic Development Ecosystem

The analysis of economic development programs and services was based on a six-step process:

1. Generate a consolidated catalog of standard regional economic development programs along with typically-desired outcomes based on a literature review, a best practices scan, case studies, and professional experience
2. Identify organizations providing economic development programs and services at a regional scale based on professional experience and rolling referral lists
3. Review organization web sites and published materials and conduct outreach with leaders to discuss goals, resources, and accomplishments—in the outreach process, CSER was assisted by a research fellow at Valley Vision and an administrative fellow at the UC Davis Health System
4. Compare programs and services provided by regional organizations to the catalog of standard programs and desired outcomes
5. Gather feedback from local economic development professionals representing local jurisdictions, non-profit organizations, utilities, and workforce development entities

6. Identify critical issues and gaps across the full spectrum of economic development programs and services based on professional experience and steps 4 and 5

The regional organizations that were targeted for outreach included (those with an asterisk did not participate in the leader interviews):

- Sacramento Area Commerce and Trade Organization (SACTO)
- Sacramento Metro Chamber
- Northern California World Trade Center
- Sacramento Area Regional Technology Alliance (SARTA)
- Northeastern California Small Business Development Center (Greater Sierra and Greater Sacramento)
- Sacramento Regional Center for International Trade Development (CITD)*
- Business Environmental Resource Center (BERC)
- Federal Technology Center (FTC)*
- Sacramento SCORE
- Greater Sacramento Certified Development Corporation*
- Linking Education and Economic Development (LEED)
- Green Capital Alliance and Greenwise Joint Venture
- Sacramento Entrepreneurship Academy
- TechCoire*
- Workforce Investment Boards (SETA, Golden Sierra, NCCC*, and Yolo*)
- Electric Utilities (SMUD, PG&E, Roseville Electric*, and NV Energy*)
- Universities (UC Davis*, Sacramento State, Los Rios Community College District, Sierra College*, Yuba College*, UOP, and Drexel)
- Ethnic Chambers (Hispanic, Asian-Pacific, and Black)

Next Economy Sponsors and Project Partners

Sponsors

- ❖ Morgan Family Foundation
- ❖ Sacramento Metropolitan Air Quality Management District
- ❖ Sacramento Works
- ❖ Sutter Health
- ❖ North State Building Industry Association
- ❖ Golden Sierra Workforce Investment Board
- ❖ City of Rancho Cordova
- ❖ Wells Fargo
- ❖ Nehemiah Corporation
- ❖ Five Star Bank
- ❖ Sacramento Metropolitan Fire
- ❖ Sacramento State
- ❖ UC Davis
- ❖ University of the Pacific
- ❖ Los Rios Community College District
- ❖ Sacramento Area Fire Fighters Local 522
- ❖ Yuba City
- ❖ California Forward
- ❖ The California Stewardship Network

Project Partners

- ❖ Sacramento Area Commerce and Trade Organization
- ❖ Sacramento Metro Chamber
- ❖ Sacramento Area Regional Technology Alliance
- ❖ Valley Vision

THE CENTER FOR STRATEGIC ECONOMIC RESEARCH (CSER) is an economic research and consulting group affiliated with the **Sacramento Area Commerce and Trade Organization (SACTO)**. CSER provides a full range of objective economic and demographic research services to businesses, government entities, educational institutions, and non-profit organizations. The experienced staff at CSER possesses extensive knowledge of economic and demographic research, economic development practices, and urban planning. Private and public sector clients throughout the country look to CSER's unique research expertise to help them make informed decisions through the strategic application of objective economic analysis. Every project is successfully completed on time, within budget, and in accordance with the highest quality standards.

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- **Market and Feasibility Analyses**
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