

2014

California Capital Region

MARKET ASSESSMENT



Part I: Market Scan and Export Trends

Prepared by: Center for Strategic Economic Research

Part II: Market Survey and Local Intelligence Interviews

Prepared by: Northern California World Trade Center

The Market Assessment was prepared as part of the development of the California Capital Region - Metropolitan Export Plan.

Sponsors:



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INTRODUCTION

In August of 2013, the California Capital Region announced its intention to develop a Metropolitan Export Plan in order to bolster the export potential of the greater Sacramento region. The Plan is an action-oriented approach to regional trade development based on a ten-step process designed by the Brookings Institution that involves collecting local market intelligence, engaging local trade partners across industries, and implementing strategies to ensure long-term economic growth through trade. To date, the California Capital Region is one of 20 metropolitan regions to undertake a Metropolitan Export Plan under the guidance of the Brookings Institution.

The Capital Region includes the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba. Leaders of these six counties first came together in 2012 to develop a region-wide economic development initiative called Next Economy – The Capital Region Prosperity Plan. Next Economy identified “amplifying the Region’s global market transactions” as one of five core strategies. The process outlined in the Brookings’ ten-step guide aligned closely with the tactics outlined in the Next Economy implementation plan for growing trade. It was a clear next step for the Region’s leaders to come together to form a Core Committee and a Steering Committee to begin the development of a Metropolitan Export Plan.

The Core Committee of the California Capital Region – Metropolitan Export Plan (CCR-MEP) submitted an application to the Brookings Institution and was selected as one of eight cities in the third peer-learning cohort called the Global Cities Initiative (GCI). Participation in the GCI, a joint project between Brookings and JP Morgan Chase, has provided the Region with access to Brookings’ data, guidance and support, as well as collaborative meetings with current and former participants of the Initiative.

The MEP’s development is based on a multi-level research project which included a thorough examination of data as well as direct outreach to regional businesses. The data portion—**Market Scan**—was conducted by the Center for Strategic Economic Research and those results are presented in Part One of this report. The direct outreach portion—**Market Survey and Local Intelligence Interviews**—was executed through an online survey and individual interviews with a broad cross section of companies. A summary of these results are presented in Part Two of this report.

The key findings of the research included herein will inform the creation of the California Capital Region – Metropolitan Export Plan.

Part I: Market Scan and Export Trends

Prepared for:

Northern California
World Trade Center

As part of:

California Capital Region
METROPOLITAN
EXPORT PLAN

Prepared by:



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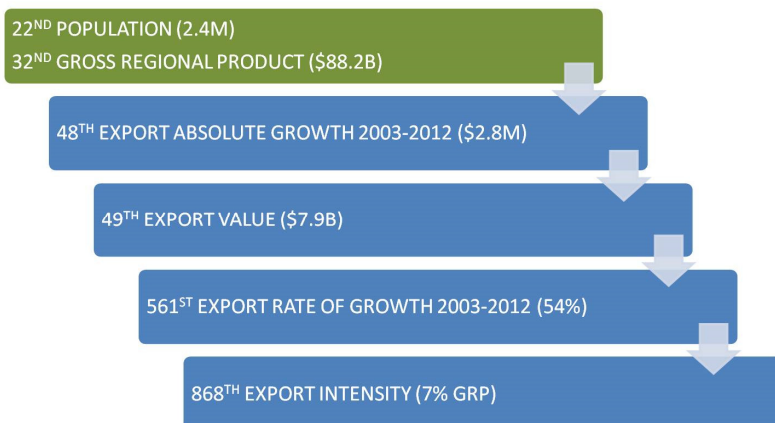
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Key Findings

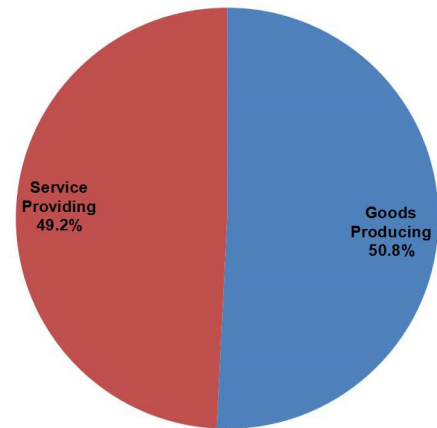
- Exports have been a driver of economic growth in the post-recession period—from 2009 to 2012, around 37.3 percent of U.S. GDP growth was attributed to exports, annually averaging 11.9 percent, while total GDP growth averaged 2.2 percent.
- Eighty-three percent of global GDP growth is projected to occur outside the U.S. in the next five years.
- For every one billion dollars of export activity, nearly 5,100 jobs are created.
- Ninety-eight percent of U.S. exports are from small and medium enterprises with fewer than 500 employees.
- Next Economy identified “Amplifying the region’s global market transactions” as one of the plan’s five priority goals. The Region’s historical underperformance in export activity led to a focus on exports as one strategy for reaching this goal.
- The Sacramento Region’s population of around 2.4 million ranks it 22nd among U.S. metropolitan areas and its \$88.2 billion in gross regional product (GRP) places it 32nd.
- With a 2012 export value of \$7.9 billion, the Sacramento Region is ranked 49th among the 941 measured metropolitan areas across the nation.
- The Region’s total export value grew 53.9 percent from 2003 to 2012 (ranking it 561 among 941 other regions) and its absolute growth was about \$2.8 million (ranked 48th out of 941 regions).
- The Sacramento Region’s total export value in 2012 was only 7.1 percent of output (also known as export intensity) ranking it 868th out of all 941 regions.
- Relative to its size and rankings in population and GRP, the Sacramento Region is underperforming in exports, particularly in export rate of growth and export intensity, among all regions in the country:



KEY FINDINGS

- Goods comprise 50.8 percent of the Sacramento Region's total export value (2012), while services account for the remaining 49.2 percent—quite a variation from the 2012 composition nationwide where services account for 29.1 percent and goods comprise 70.9 percent. The Region's split in GRP, in comparison, is far less balanced with around 15 percent output in goods and 85 percent in services.
- The top export sectors for the Sacramento Region, identified through an analysis of the industry sectors at the four-digit NAICS level and their performance on four indicators, are as follows (sorted by 2012 total export value):

**Sacramento Region Share of
2012 Total Export Value**



GOODS PRODUCING	SERVICE PROVIDING
COMPUTER EQUIPMENT	IT ROYALTIES
AGRICULTURE	MANAGEMENT & CONSULTING
PRECISION INSTRUMENTS	FINANCIAL SERVICES
ALL OTHER MISC MANUFACTURING	R&D SERVICES
AG, CONST, & MINING EQUIP	TELECOMM SERVICES
GRAIN & OILSEED PRODUCTS	ACCOMMODATION SERVICES
MEDICAL EQUIP & SUPPLIES	COMP & ELEC EQUIP ROYALTIES
BEVERAGE & TOBACCO PRODUCTS	INSURANCE SERVICES
CLEANING PRODUCTS	EQUIP INSTALLATION SERVICES
AUDIO & VIDEO EQUIPMENT	ARCH & ENGINEERING SERVICES

- The majority of regional export value is captured in the 20 top-performing sectors.
- There is notable overlap between the top-performing export sectors and the economic activities included in the five Next Economy core business clusters.
- The analysis of the top export industries combined shows that the five international markets that show the most potential to target are: Canada, Mexico, China, Japan, and Hong Kong. Of the \$311.7 billion dollars in exports worldwide attributed to these sectors, Canada and Mexico account for nearly one-third (28 percent).
- The five market targets are also among the markets with the greatest absolute growth in export value in the past five years—Switzerland and India are also in the top half of this list and represent other potential targets.

Rationale for Exports

In January 2010, President Obama introduced the National Export Initiative (NEI) that aimed to double exports by the end of 2014 through increased focus on eliminating trade barriers abroad and providing more accessible financial assistance. This national focus on increasing exports was initiated by the fact that export activity has been instrumental in economic growth in the recession recovery period. In May 2014, NEI/NEXT was launched to build upon the success of NEI (under which the U.S. has had four record-breaking years in exports) and help connect businesses with 95 percent of consumers outside of the U.S. Other factors that support export activity's importance are as follows:

- Trade-related global output has tripled since 1950 with a large share of this global growth driven by the 300 largest metropolitan areas in the world.¹
- 83 percent of global GDP growth is projected to occur outside the U.S. between 2013 and 2018.²
- The U.S. accounted for 20.3 percent of global middle class consumption in 2010, but is projected to account for just 4.5 percent by 2040.³ In fact, middle class consumption in emerging markets will jump from \$12 trillion in 2010 to \$30 trillion in 2025—much stronger growth than middle class consumption forecasted for developed markets.⁴
- Only 4 percent of U.S. employer firms export, and 58 percent of exporters only sell to one foreign market.⁵
- Exports accounted for 37 percent of GDP growth in the U.S. from 2009 to 2012, and 54 percent of GDP growth in the 100 largest metro areas over the same time period.⁶
- Every billion dollars of exports supports 5,080 U.S. jobs.⁷

Increasing global integration

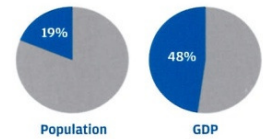
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Since 1950, the share of global output from trade has tripled

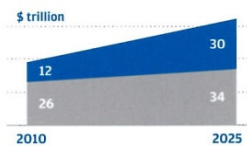
Metro areas drive global growth

■ 300 largest global metro areas
■ Rest of world



Expanding global middle class

Global consumption by market type
■ Emerging ■ Developed



Creating job growth



5,080

Total jobs created for every \$1 billion in exports

Source: Global Cities Initiative: A Joint Project of Brookings and JPMorgan Chase, "Investing in Our Cities' Economic Future"

¹ Global Cities Initiative: A Joint Project of Brookings and JPMorgan Chase, "Investing in Our Cities' Economic Future," 2014

² World Economic Outlook, International Monetary Fund, 2013

³ Homi Kharas, "The Emerging Middle Class in Developing Countries," OECD Development Center, 2010

⁴ Global Cities Initiative, 2014

⁵ International Trade Administration

⁶ Brookings, Export Nation 2013

⁷ Global Cities Initiative, 2014

RATIONALE FOR EXPORTS

- From 2005-2009, U.S. manufacturers that exported saw revenues grow by 37 percent, while those that did not export saw revenues fall by 7 percent.⁸
- Compared to non-exporters, U.S. business services exporters have 100 percent higher sales, 70 percent higher employment, and 20 percent higher wages.⁹
- In 2014, a survey of national businesses supported by Chase Commercial Banking and Chase Business Banking found that over half (58 percent) of them buy and/or sell from/to foreign markets and/or operate in foreign countries indicating a relatively strong global market.¹⁰
- Seventy-six percent of national business leaders responding to the 2014 Chase survey indicated that they anticipated their company's overseas sales to increase.¹¹

In 2011, over 50 organizations throughout the Sacramento Region (consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties) came together to develop an integrated economic development strategy. Next Economy is a business-led, volunteer-driven regional endeavor that strives to move a \$97 billion annual economy that has suffered economic hardship and a lagging recovery into one that is diversified, robust and sustainable. The resulting effort is a data-driven report and action plan outlining the steps needed, the time frame, and the organizations responsible for the implementation of the regional strategy. The Next Economy Capital Region Prosperity Plan sets the stage for all economic development activities in the Sacramento Region for the next five years, and beyond. It also demonstrates the Sacramento Region's readiness to take a deeper dive into region-specific strategies relating to export growth and foreign direct investment.

The Northern California World Trade Center (NorCalWTC) is an integral part of Next Economy Regional Prosperity Plan. Next Economy identified "Amplifying the region's global market transactions" as one of the plan's five priority goals. The Region has underperformed in export activity driving the component of this strategy focused on exports. The NorCalWTC has been tasked with executing the Next Economy action items that relate to achieving this goal, particularly in relation to increasing the Region's export activity. The NorCalWTC's first step towards this task was launching the California Capital Region – Metro Export Initiative in August 2013 with leaders from over 30 regional jurisdictions and economic development organizations.

Soon thereafter, the Region was accepted into the Global Cities Initiative's (the Exchange) cohort, the joint project of Brookings Institution and JPMorgan Chase.* The Exchange is a

⁸ U.S. International Trade Commission, "Small and Medium-Sized Enterprises: Characteristics and Performance," 2010

⁹ J Bradford Jensen, "Global Trade in Services: Fear, Facts, and Offshoring," Petersen Institute for International Economics, 2011

¹⁰ Chase Business Leaders Outlook Survey, Middle Market, 2014.

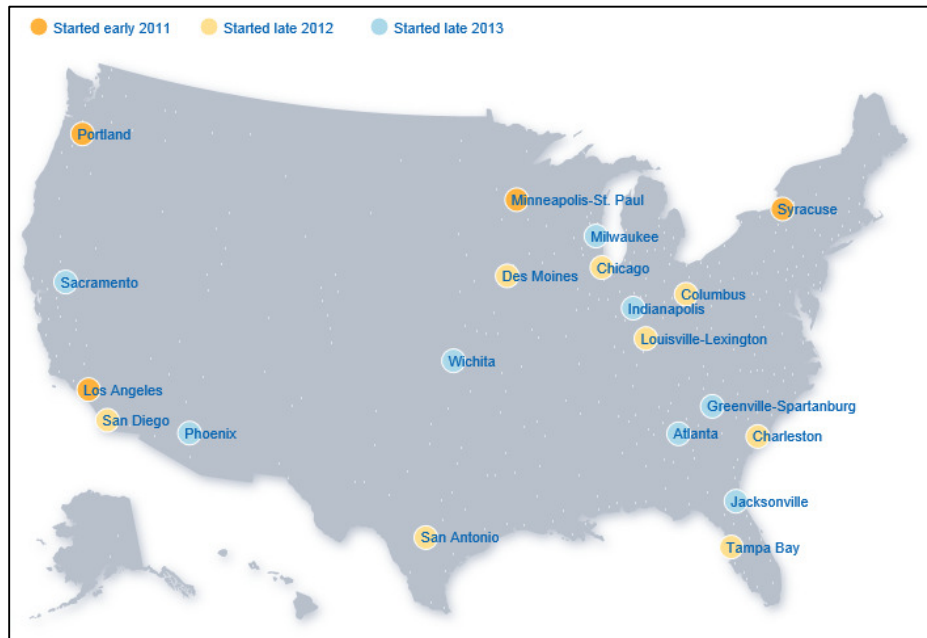
¹¹ Chase, 2014.

*Launched in 2012, the Global Cities Initiative focused on catalyzing a shift in economic development priorities and practices resulting in more globally-connected metropolitan areas and more sustainable economic growth.

RATIONALE FOR EXPORTS

network of metropolitan areas committed to establishing actionable export plans that will promote greater global trade and economic competitiveness. Brookings selected metropolitan areas to join the network after an extensive application process that evaluated regions' readiness and capability to pursue the Exchange's curriculum and commitment to implement a metropolitan export plan. The Sacramento Region is one of eight Exchange metropolitan areas that were selected in this round to receive Brookings support while developing its regional export plan. There were two previous cohorts, one that started in early 2011 and one in late 2012. Most of these regions have been experiencing success in enhancing programs supporting businesses and growing regional exports.

METROPOLITAN AREAS PARTICIPATING IN THE EXCHANGE



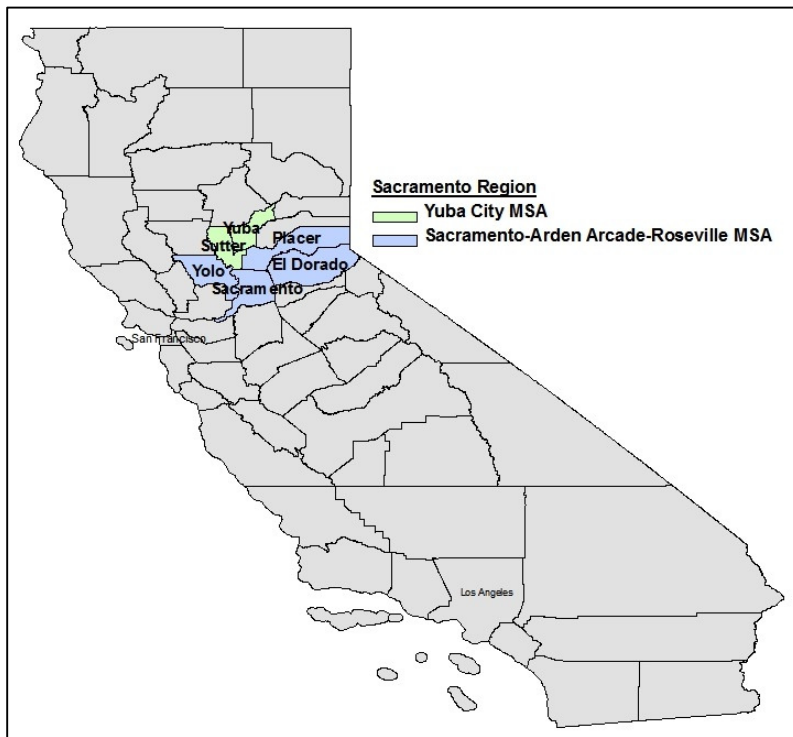
Source: Brookings Institution

Regional Economy and Performance

The six-county Sacramento Region covers 23 cities, spans roughly 6,300 square miles and comprises nearly 2.4 million residents, making it the 4th largest metropolitan region in California and the 22nd largest in the United States. The Region has a wide array of regional trade assets including a deep water channel sea port in West Sacramento and proximity to other ports in Stockton and Oakland; the Sacramento International Airport; access to major markets through its interstate and highway network; a foreign trade zone; and recognition as one of the nation's most culturally diverse regions.

The Sacramento Region includes two metropolitan statistical areas (MSAs), Sacramento-Arden Arcade-Roseville MSA and Yuba City MSA, shown in the map below. MSAs are geographical areas anchored by a core with a high population density and surrounding areas tied to the core through strong economic ties. Throughout this market assessment, the Sacramento Region will be treated as if it were an MSA despite it being an aggregate of these two metropolitan areas and, for comparison purposes, its performance is ranked against the 941 MSAs across the nation.

SACRAMENTO REGION MAP



Center for Strategic Economic Research, June 2014

REGIONAL ECONOMY & PERFORMANCE

Ranking 22nd among the metropolitan areas in the nation, the Sacramento Region's population reached nearly 2.4 million people in 2013. Since 2003, the Region saw around 13 percent growth, exceeding the statewide growth rate of 8 percent.

POPULATION

Area	2003	2008	2008 U.S. Population Rank	2013	2013 U.S. Population Rank	Absolute Change 2003-2013	% Change 2003-2013	Absolute Change 2008-2013	% Change 2008-2013
California	35,163,609	36,704,375		37,984,138		2,820,529	8.0%	1,279,763	3.5%
Sacramento Region	2,084,252	2,266,234	23	2,359,084	22	274,832	13.2%	92,850	4.1%
Sacramento MSA	1,937,885	2,102,431	25	2,190,504	27	252,619	13.0%	88,073	4.2%
Yuba City MSA	146,367	163,803	234	168,580	242	22,213	15.2%	4,777	2.9%

Center for Strategic Economic Research, June 2014

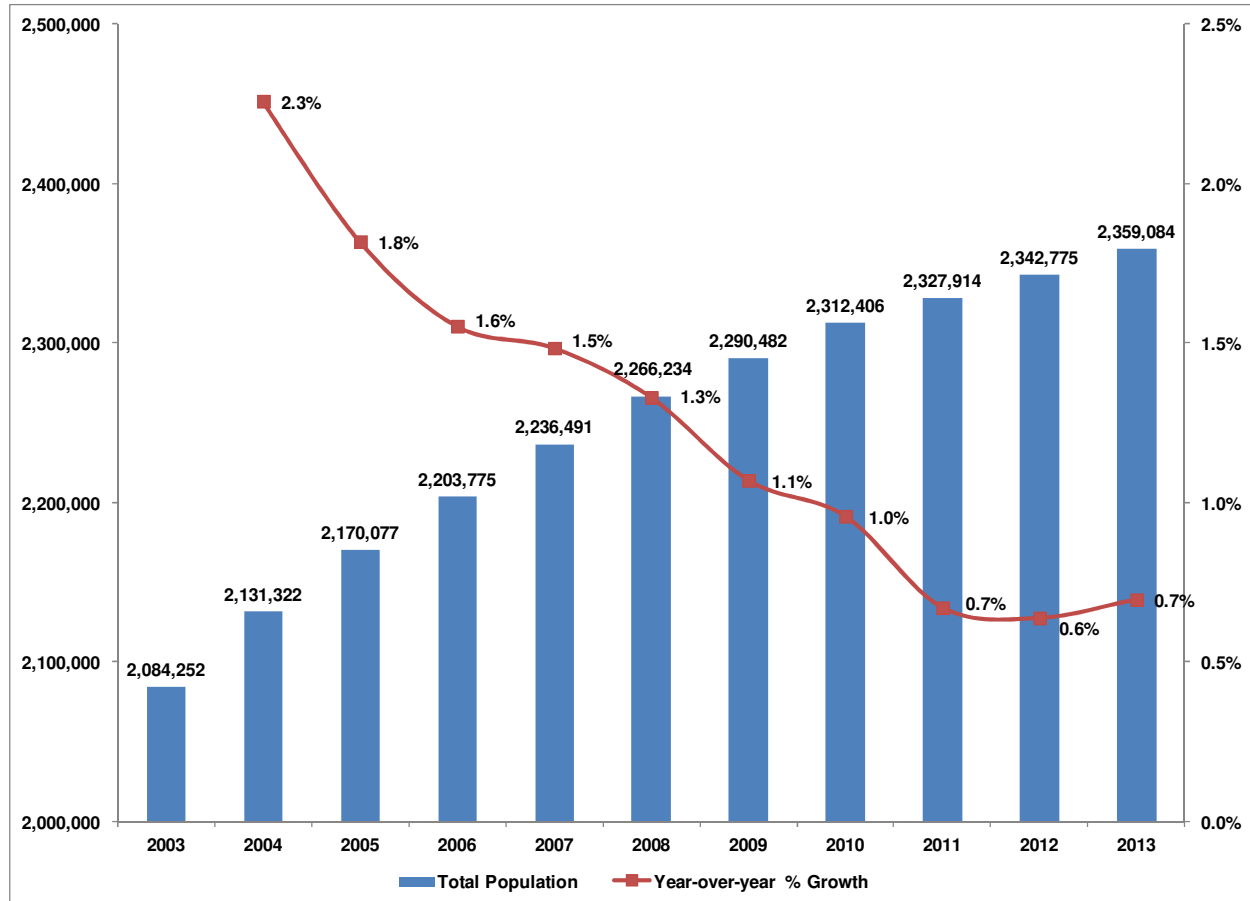
Data Sources: California Department of Finance, Demographic Research Unit

Note: Metropolitan area rankings not available for 2003.

REGIONAL ECONOMY & PERFORMANCE

In the time period represented in the chart below, the Sacramento Region's year-over-year growth rate peaked in 2004 at over 2 percent. Since then, the annual rate declined, but maintained positive growth since the most recent period recording of just below 1 percent.

SACRAMENTO REGION TOTAL POPULATION AND ANNUAL AVERAGE GROWTH



Center for Strategic Economic Research, June 2014

Data Sources: California Department of Finance, Demographic Research Unit

REGIONAL ECONOMY & PERFORMANCE

The Sacramento Region's real gross domestic product (GDP) in 2012 was close to \$88.2 million, ranking it 32nd among the nation's metropolitan areas. The Region's growth in this indicator was below the national and statewide rates in the ten-year and five-year time periods. From 2002 to 2012, the Sacramento Region's GDP grew 11 percent compared to between 16 and 17 percent at the statewide and national levels. During the period of 2007 to 2012, the Region suffered a decline of nearly 6 percent in its GDP relative to the state's approximate 1 percent decline and the nation's 2.5 percent growth. This indicates the greater extent to which the Region suffered from the recession (covered in this time period) relative to the United States and California.

REAL GROSS DOMESTIC PRODUCT (IN \$MILLIONS OF 2005 DOLLARS)

Area	2002	2002 U.S. GDP Rank	2007	2007 U.S. GDP Rank	2012	2012 U.S. GDP Rank	Absolute Change 2002-2012	% Change 2002-2012	Absolute Change 2007-2012	% Change 2007-2012
United States	11,559,801		13,103,341		13,430,576		1,870,775	16.2%	327,235	2.5%
California	1,502,642		1,763,450		1,751,002		248,360	16.5%	-12,448	-0.7%
Sacramento Region	79,386	31	93,697	30	88,154	32	8,768	11.0%	-5,543	-5.9%
Sacramento MSA	75,729	32	89,628	33	84,281	33	8,552	11.3%	-5,347	-6.0%
Yuba City MSA	3,657	288	4,069	298	3,873	305	216	5.9%	-196	-4.8%

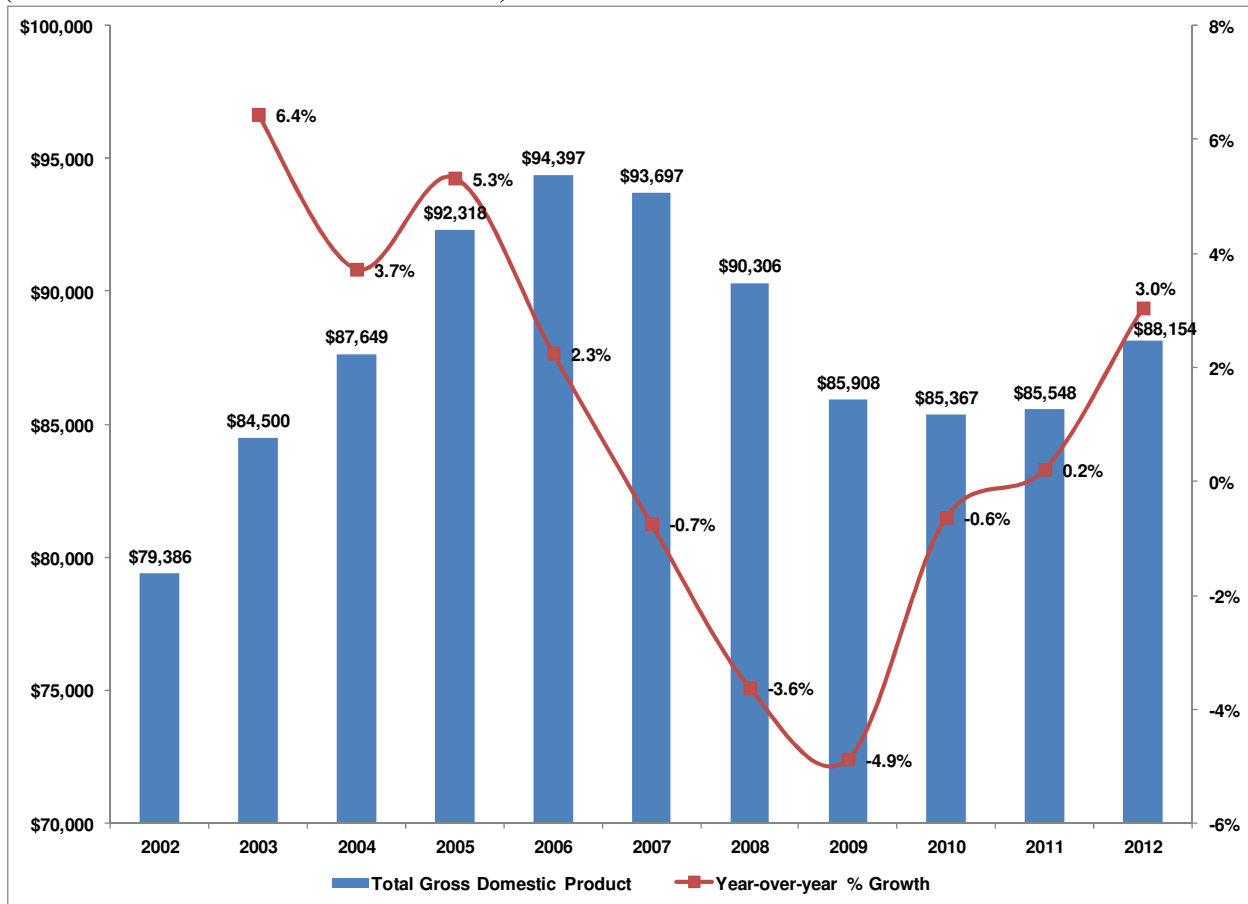
Center for Strategic Economic Research, June 2014

Data Source: Bureau of Economic Analysis, Gross Domestic Product by State and Metropolitan Statistical Area

REGIONAL ECONOMY & PERFORMANCE

Annual average growth of the Sacramento Region's total real GDP fluctuated between the years 2002 and 2012 peaking at over 6 percent in 2003 to dipping to nearly -5 percent in 2009 (reflecting the effects of the Great Recession).

SACRAMENTO REGION TOTAL REAL GROSS DOMESTIC PRODUCT AND ANNUAL AVERAGE GROWTH (IN \$MILLIONS OF 2005 DOLLARS)



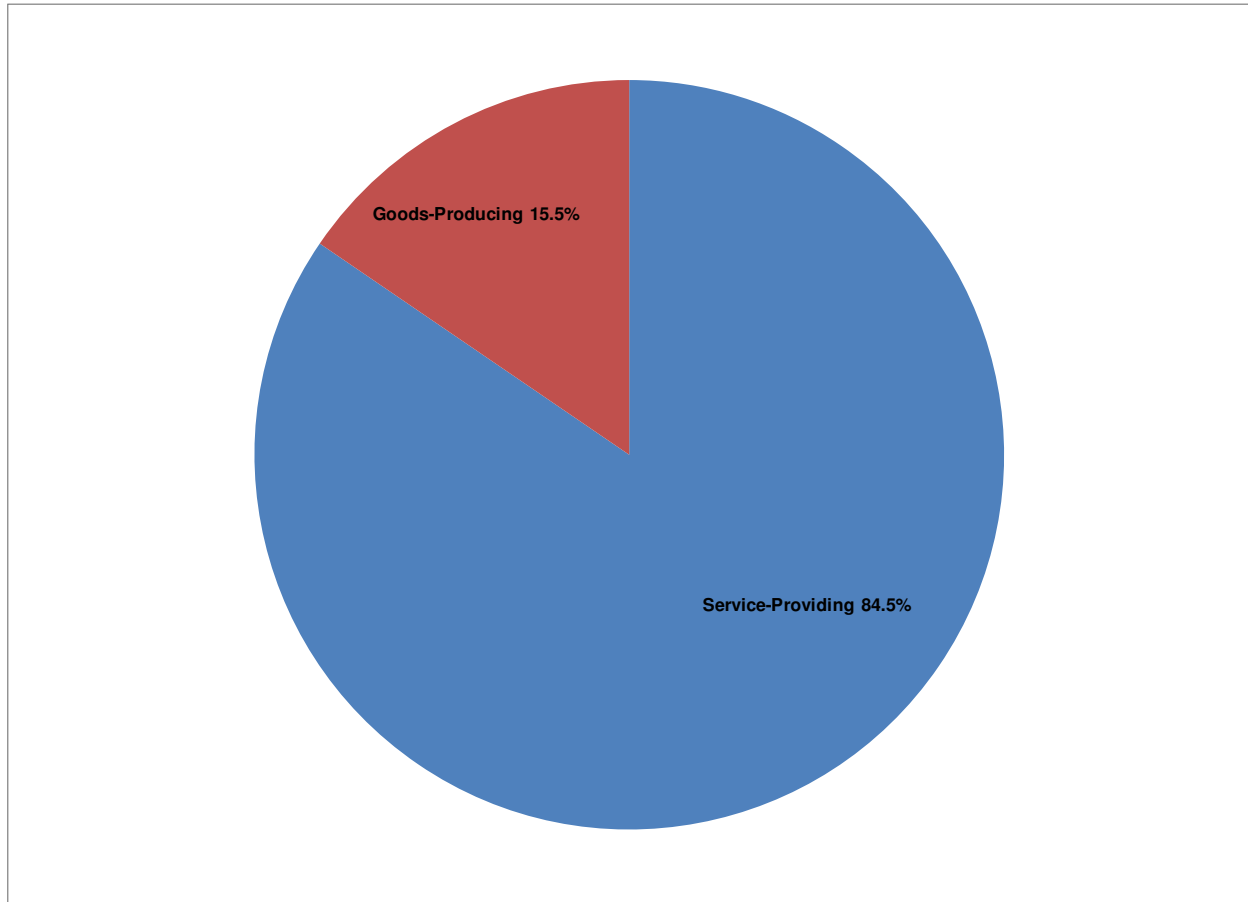
Center for Strategic Economic Research, June 2014

Data Source: Bureau of Economic Analysis, Gross Domestic Product by State and Metropolitan Statistical Area

REGIONAL ECONOMY & PERFORMANCE

About 85 percent of the Sacramento Region's private sector real GDP originates in the service providing sectors while the remaining 15 percent is in the goods-producing sectors. The Region's service-providing sectors' GDP has a much higher share than both the nation and the state which have about 78 percent and 82 percent, respectively, of its real GDP focused in service sectors.

SACRAMENTO REGION SHARE OF 2012 PRIVATE SECTOR REAL GDP



Center for Strategic Economic Research, June 2014

Data Source: Bureau of Economic Analysis, Gross Domestic Product by State and Metropolitan Statistical Area

REGIONAL ECONOMY & PERFORMANCE

In 2013, the Sacramento Region's total employment was over 916,000, 95 percent of which falls within the Sacramento MSA (ranking it 31st out of all measured metropolitan areas). In both the ten-year and five-year periods, the Region lagged the nationwide and statewide growth, particularly from 2008 to 2013 when the Region's employment declined almost 4 percent relative to a decline of around 1 percent each in the nation and state, demonstrating the Region's much slower recovery from the recent recession.

TOTAL INDUSTRY EMPLOYMENT

<i>Area</i>	<i>2003</i>	<i>2008</i>	<i>2013</i>	<i>2013 U.S. Employment Rank</i>	<i>Absolute Change 2003-2013</i>	<i>% Change 2003-2013</i>	<i>Absolute Change 2008-2013</i>	<i>% Change 2008-2013</i>
United States	130,318,000	137,170,000	136,368,000		6,050,000	4.6%	-802,000	-0.6%
California	14,933,100	15,629,900	15,558,800		625,700	4.2%	-71,100	-0.5%
Sacramento Region	906,200	951,100	916,400	31	10,200	1.1%	-34,700	-3.6%
Sacramento MSA	862,900	905,700	873,200	33	10,300	1.2%	-32,500	-3.6%
Yuba City MSA	43,300	45,400	43,200	335	-100	-0.2%	-2,200	-4.8%

Center for Strategic Economic Research, June 2014

Data Sources: Bureau of Labor Statistics, CES and California Employment Development Department, LMID

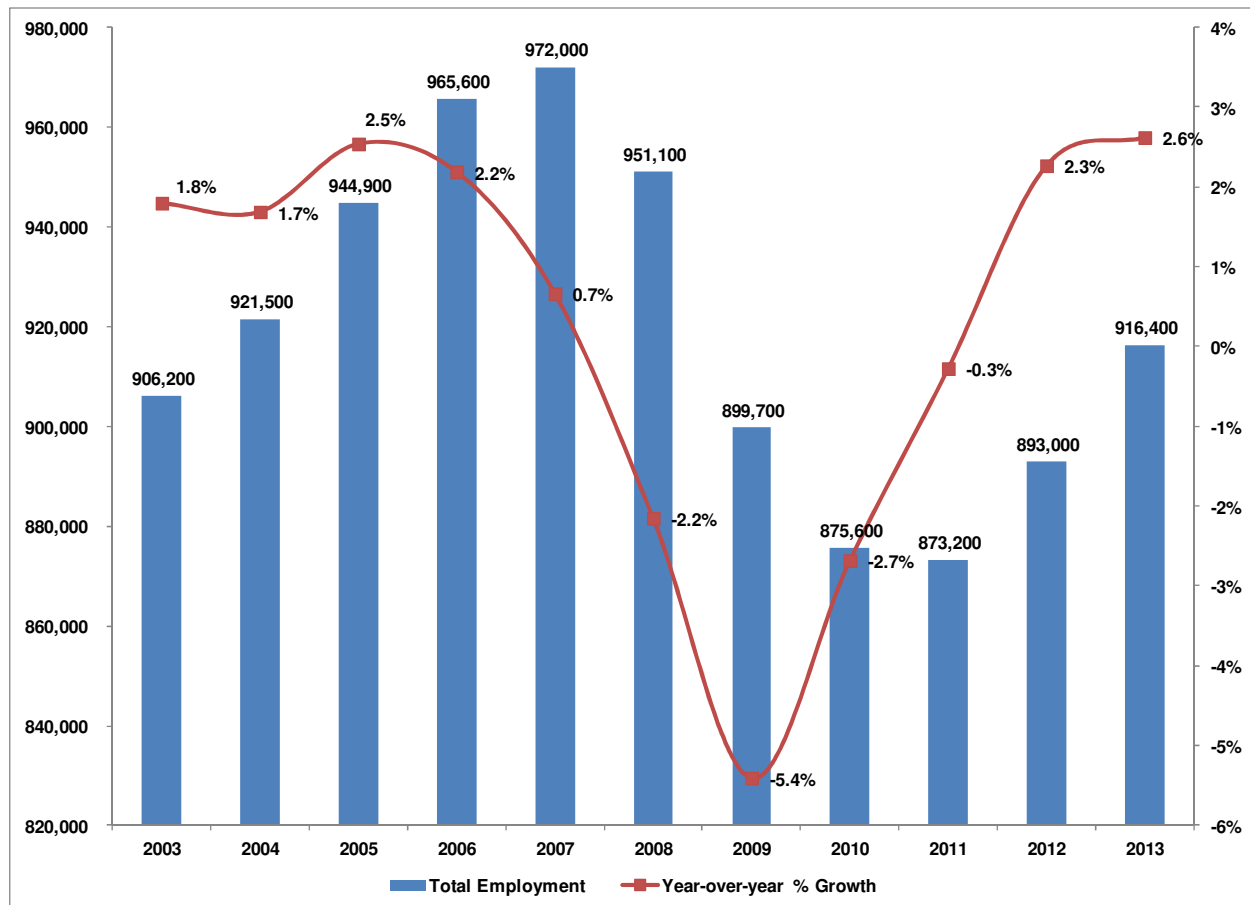
Note: U.S. data reflects total nonfarm employment.

Data represents annual average employment.

REGIONAL ECONOMY & PERFORMANCE

Annual average employment and growth show the dramatic effects of the recession starting in 2008 when nearly 21,000 jobs were lost since the previous year followed by an even more significant loss of over 51,000 jobs from 2008 to 2009. It was not until 2012 that positive job growth was seen in the Region; however, by that point, total employment of 893,000 was at 2001 levels. Although year-over-year growth increased at a slower rate from 2012 to 2013 than seen in the previous years, employment still increased to reach almost 3 percent annual growth.

SACRAMENTO REGION TOTAL EMPLOYMENT AND ANNUAL AVERAGE GROWTH



Center for Strategic Economic Research, June 2014

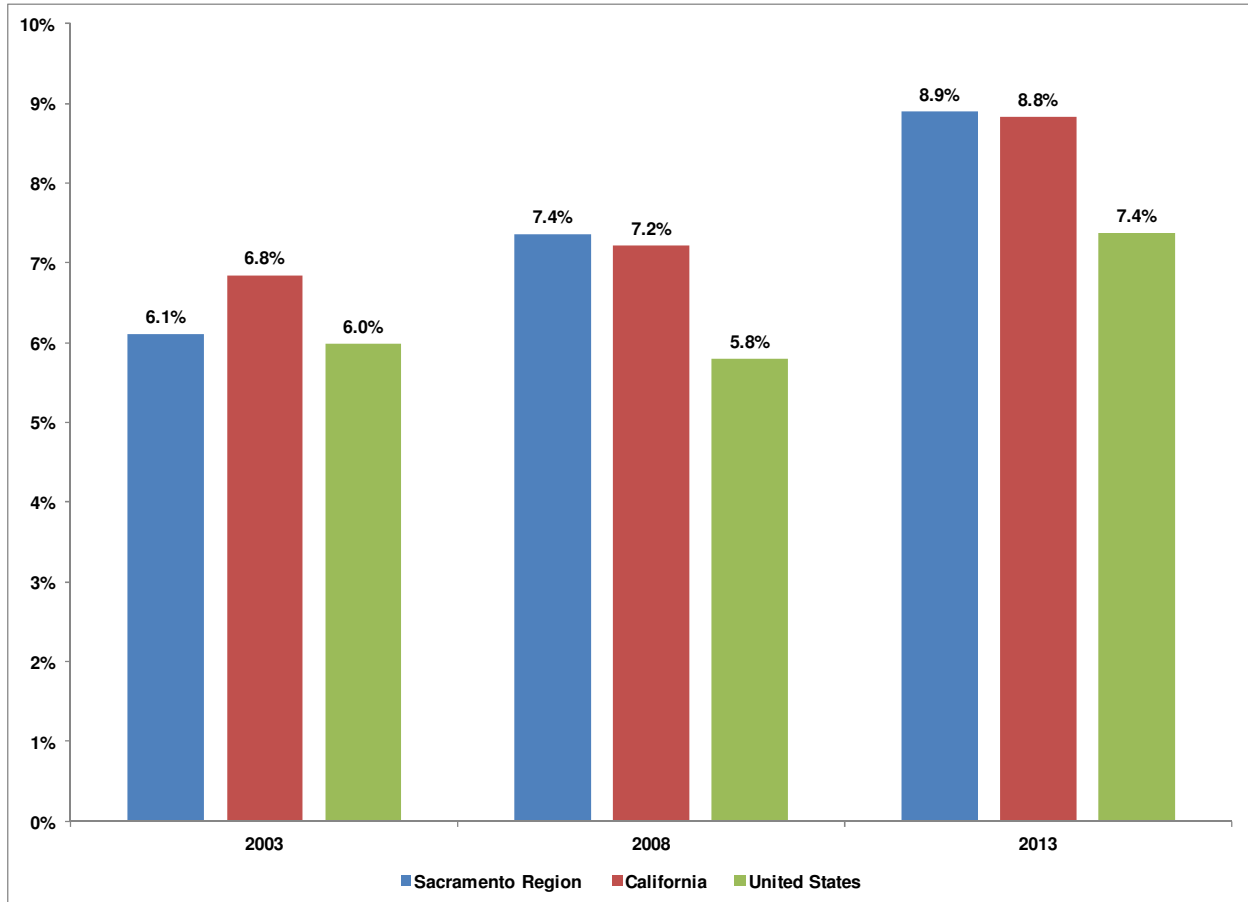
Data Sources: California Employment Development Department, Labor Market Information Division

Note: Data represents annual average employment.

REGIONAL ECONOMY & PERFORMANCE

The Sacramento Region's annual average unemployment rate in 2013 was 8.9 percent, just slightly above the statewide rate of 8.8 percent and 1.5 percentage points above the national average. Although this rate was far above the level seen in 2003 (6.1 percent), there has been a notable improvement in the Region's unemployment since 2012 when the rate sat just below 11 percent.

ANNUAL AVERAGE UNEMPLOYMENT RATE



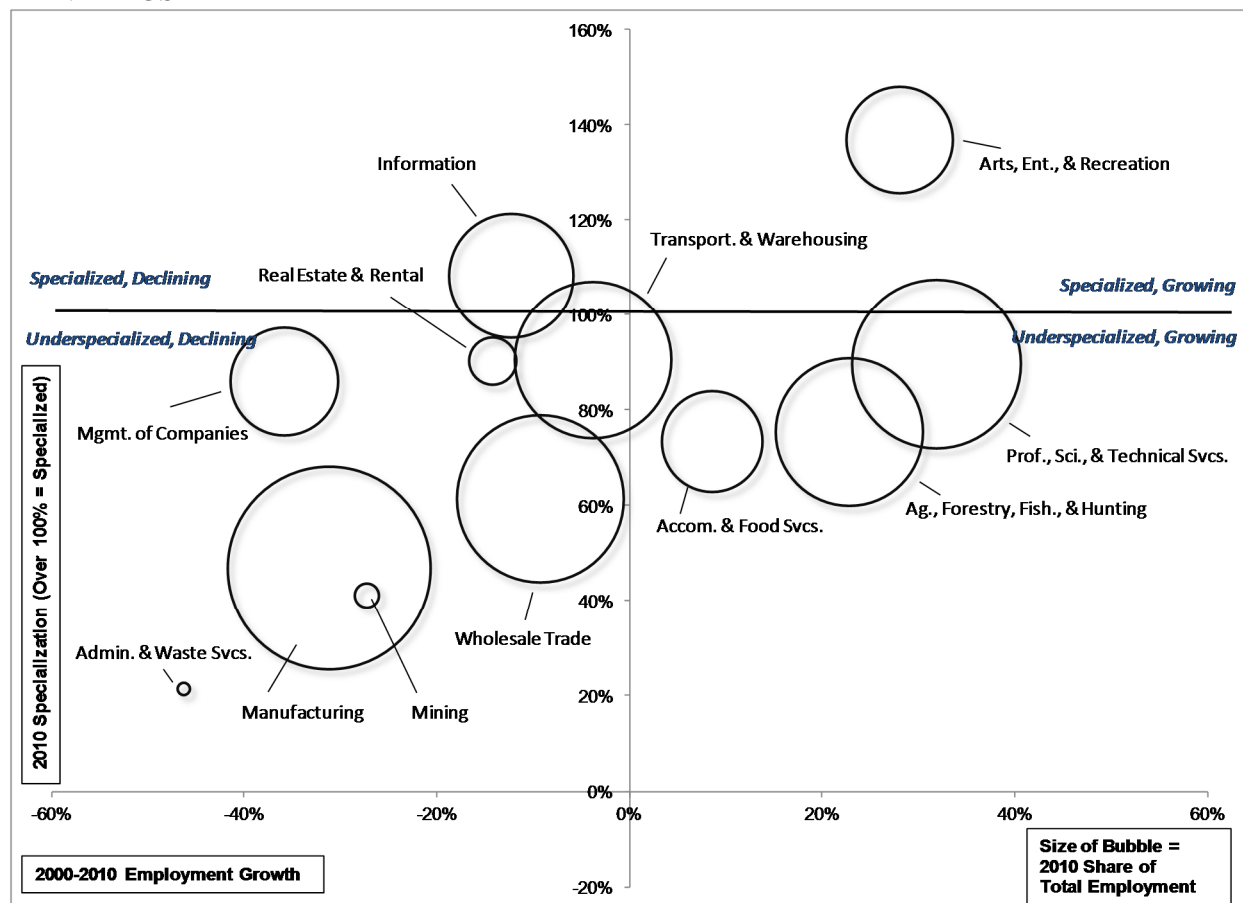
Center for Strategic Economic Research, June 2014

Data Sources: U.S. Bureau of Labor Statistics, National, State, and Local Area Unemployment Statistics and California Employment Development Department, LMID

REGIONAL ECONOMY & PERFORMANCE

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.

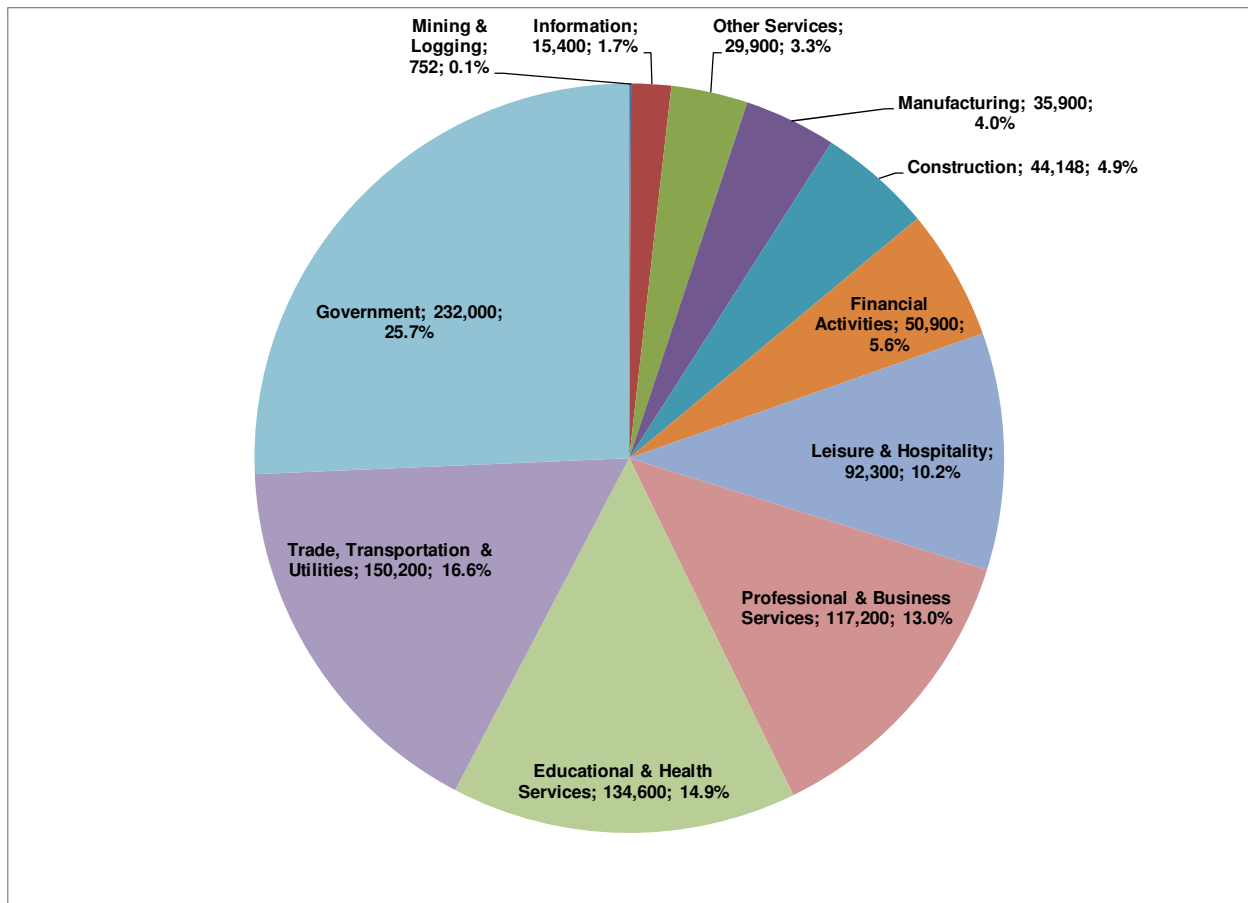
Specialization compares the share of employment in the region and the state; a measure over 100% indicates that the region has a greater share than the state (i.e. specialized).

Regional Industries, Major Employers, Anchor Institutions, and Industry Clusters

Industries

The largest proportions of total jobs on payrolls in the Sacramento Region in 2013 were in Government; Trade, Transportation & Utilities (the sector that includes retail and distribution of goods); and Educational & Health Services. These three sectors, combined, made up over half of the Region's total employment. The Government sector comprised around 232,000 jobs in the Sacramento Region in 2013 and has historically been the largest sector in the Region, similar to other regions throughout the U.S. especially those with state capital cities. The Trade, Transportation & Utilities; Educational & Health Services; and Professional & Business Services sectors each included over 100,000 regional jobs.

2013 SACRAMENTO REGION EMPLOYMENT COMPOSITION BY MAJOR INDUSTRY SECTOR



Center for Strategic Economic Research, June 2014

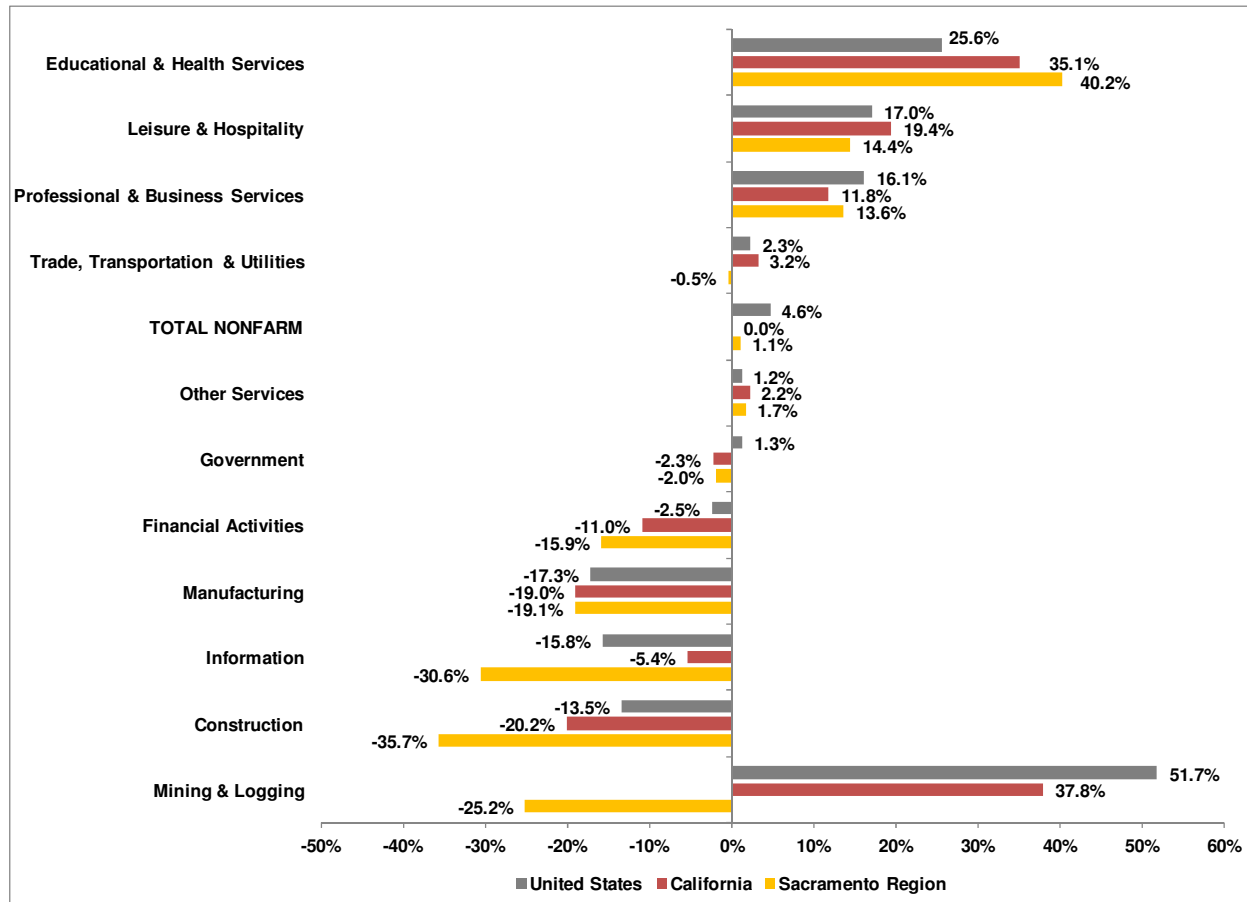
Data Sources: California Employment Development Department, Labor Market Information Division

Note: Only nonfarm industries are represented here as the Agriculture industry is seasonal and its variations in data are not comparable in this analysis.

REGIONAL INDUSTRIES, MAJOR EMPLOYERS, INSTITUTIONS & CLUSTERS

Between 2003 and 2013, the Sacramento Region saw relatively strong employment growth in three sectors: Educational & Health Services (about 40 percent); Leisure & Hospitality (about 14 percent); and Professional & Business Services (nearly 14 percent). Much of the growth during this decade could be attributed to the expansions of several major healthcare institutions in the Region and the rapid growth of private education in several technical training disciplines.

2003-2013 MAJOR INDUSTRY SECTOR EMPLOYMENT GROWTH



Center for Strategic Economic Research, June 2014

Data Sources: California Employment Development Department, Labor Market Information Division and U.S. Bureau of Labor Statistics, Current Employment Estimates

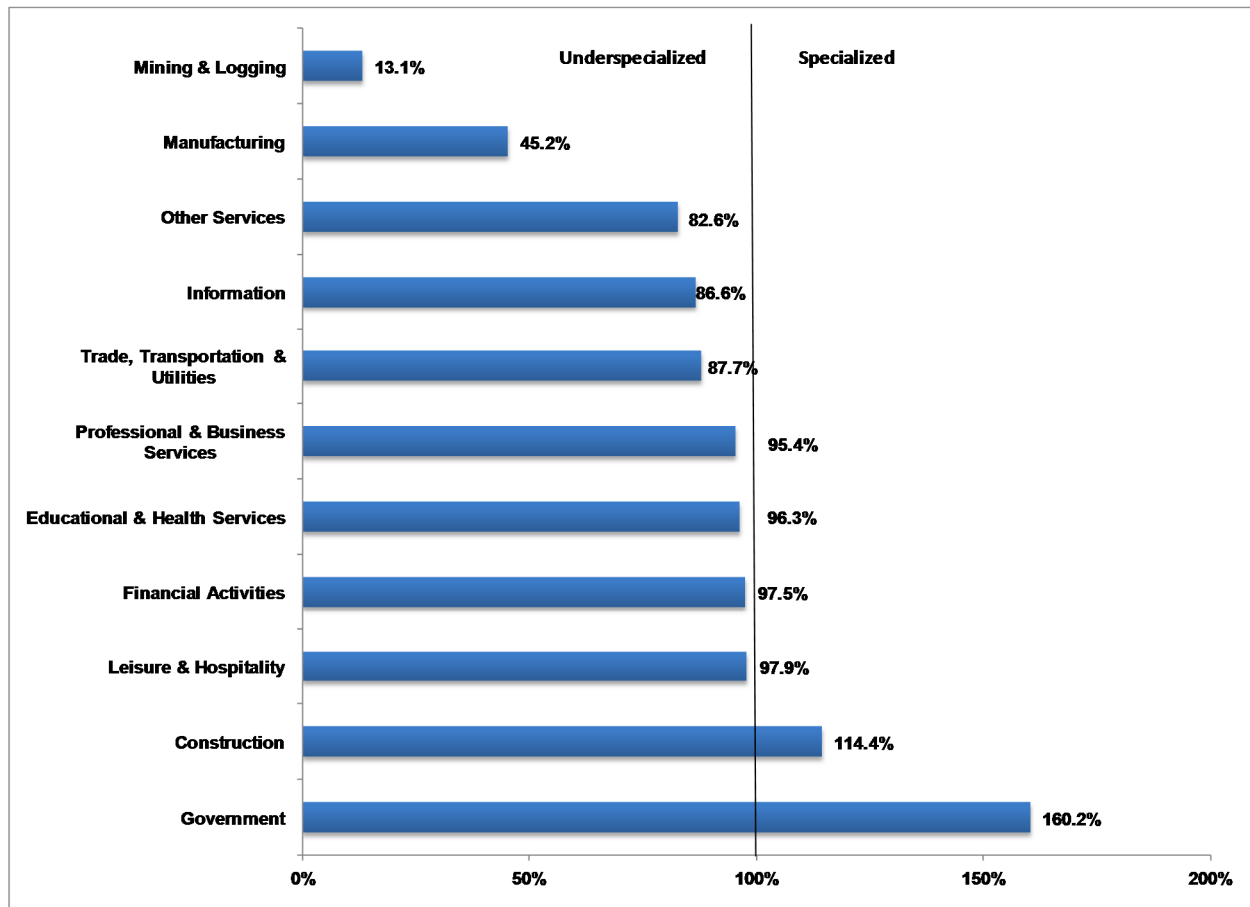
Note: Data represents annual average employment.

Only nonfarm industries are represented here as the Agriculture industry is seasonal and its variations in data are not comparable in this analysis.

REGIONAL INDUSTRIES, MAJOR EMPLOYERS, INSTITUTIONS & CLUSTERS

Specialization, also known as location quotient, compares the proportion of total employment between the Sacramento Region and the United States—a level of specialization over 100 percent in the Region indicates that it is specialized in that sector (the Region has a greater proportion of total employment compared to the nation). The Sacramento Region is specialized in two sectors: Government and Construction, but is either about even or underspecialized in the remaining nine sectors.

2013 SACRAMENTO REGION INDUSTRY SPECIALIZATION



Center for Strategic Economic Research, June 2014

Data Sources: California Employment Development Department, Labor Market Information Division and U.S. Bureau of Labor Statistics, Current Employment Estimates

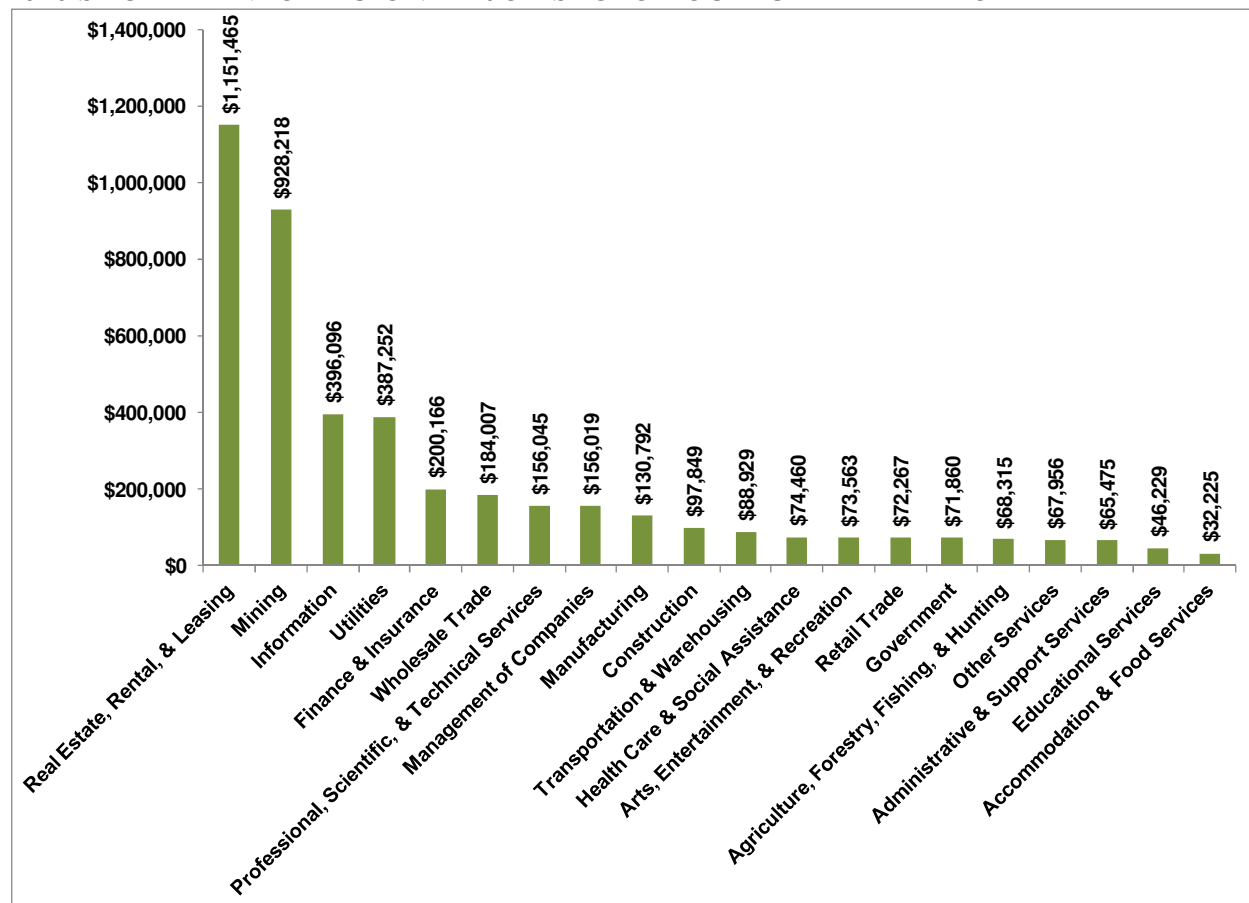
Notes: Specialization reflects a comparison of the proportion of total employment in the Sacramento Region compared to the nationwide average.

Only nonfarm industries are represented here as the Agriculture industry is seasonal and its variations in data are not comparable in this analysis.

REGIONAL INDUSTRIES, MAJOR EMPLOYERS, INSTITUTIONS & CLUSTERS

A high level of productivity, or output per employee, benefits an economy in many ways. If a firm can produce more of its product or service per hour worked, their profitability increases which facilitates growth and expansion opportunities for the company and ultimately hiring of more workers. Workers in highly productive sectors generally earn above average salaries and their increased demand of products and services drives growth in other sectors which also will hire more workers to meet demand. Although highly productive sectors may directly contribute fewer jobs than other sectors in an economy, they have a strong multiplier effect which creates additional jobs in supporting industries through demand on linked suppliers of goods and services and employee spending. The combination of company expansions due to increased profitability, higher employee wages, and a strong multiplier effect validate productive sectors' contribution to a region's overall level of output and employment. Productivity has become a major driver of economic growth in several industry sectors and 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.

2010 SACRAMENTO REGION MAJOR SECTOR OUTPUT PER EMPLOYEE



Center for Strategic Economic Research, February 2012

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

Major Employers

The Sacramento Region's major private sector employers represent industries ranging from healthcare and financial services to manufacturing of all types. The three largest employers are all in the health care industry. A handful of these major employers export goods and services such as VSP Global and Aerojet Rocketdyne.

SACRAMENTO REGION MAJOR PRIVATE SECTOR EMPLOYERS (1,000+ EMPLOYEES)

<i>Company</i>	<i>Industry</i>	<i>Number of Local Employees</i>
Sutter Health *	Health Care	9,494
Kaiser Permanente	Health Care	9,109
Dignity Health	Health Care	7,397
Raley's Inc.*	Retail Grocery	6,240
Intel Corp.	Research and Development of Semiconductors	6,000
Wells Fargo & Co.	Financial Services	3,249
Hewlett-Packard Co.**	Research and Design of information technology systems	3,200
Cache Creek Casino Resort	Casino resort	2,400
Health Net of California, Health Net Federal Services	Health Plan	2,358
VSP Global*	Vision Health Care Insurance	2,223
Union Pacific Railroad Co. Inc.	Transportation and Movement of Goods	2,100
Thunder Valley Casino Resort	Casino Resort	2,000
Northstar California***	Ski Resort	1,950
PRIDE Industries*	Manufacturing and Logistics	1,948
Blue Shield of California	Health Plan	1,830
Aerojet Rocketdyne*, **	Aerospace and defense manufacturing	1,783
Red Hawk Casino	Casino, Restaurant, Entertainment	1,400
Marshall Medical Center*	Health Care	1,232
Delta Dental	Dental Benefits	1,190
Eskaton*	Community Living and Home Support	1,161

Center for Strategic Economic Research, June 2014

Data Source: Sacramento Business Journal Top 25 Book of Lists 2013

Note: Employment numbers are full-time equivalents except where otherwise noted.

Represents major employers in the 4-county metropolitan area (El Dorado, Placer, Sacramento, and Yolo Counties).

*Headquartered in the Sacramento Region.

**Employment estimated.

*** 450 year-round employment.

Anchor Institutions

Higher education is available from a variety of institutions throughout the area. The University of California Davis (UC Davis); California State University, Sacramento (Sacramento State); seven community colleges, numerous vocational schools; professional schools; private schools; and local campuses of colleges headquartered elsewhere in the nation provide for the educational needs of local business and the community.

UC Davis is the largest four-year university in the Sacramento Region with approximately 32,000 students in the fall term of 2012, followed by Sacramento State with almost 29,000 students. Since 2002, UC Davis's enrollment increased about 11 percent while Sacramento State maintained the same enrollment.

SACRAMENTO REGION PUBLIC HIGHER EDUCATION ENROLLMENT

<i>Type / Institution Name</i>	% Change		
	<i>2002</i>	<i>2012</i>	<i>2002-2012</i>
University of California			
University of California, Davis	29,087	32,354	11.2%
California State University			
California State University, Sacramento	28,559	28,539	-0.1%
California Community College Districts			
Lake Tahoe Community College District	4,265	2,566	-39.8%
Los Rios Community College District	74,250	76,039	2.4%
Sierra College Community College District	20,249	18,435	-9.0%
Yuba Community College District	10,695	9,601	-10.2%

Center for Strategic Economic Research, June 2014
 Data Source: California Postsecondary Education Commission;
 California Community College Chancellors Office; California State
 University, Sacramento University of California, Davis;
 and National Center for Education Statistics
 Note: Data reflects enrollment for fall term of year stated.

REGIONAL INDUSTRIES, MAJOR EMPLOYERS, INSTITUTIONS & CLUSTERS

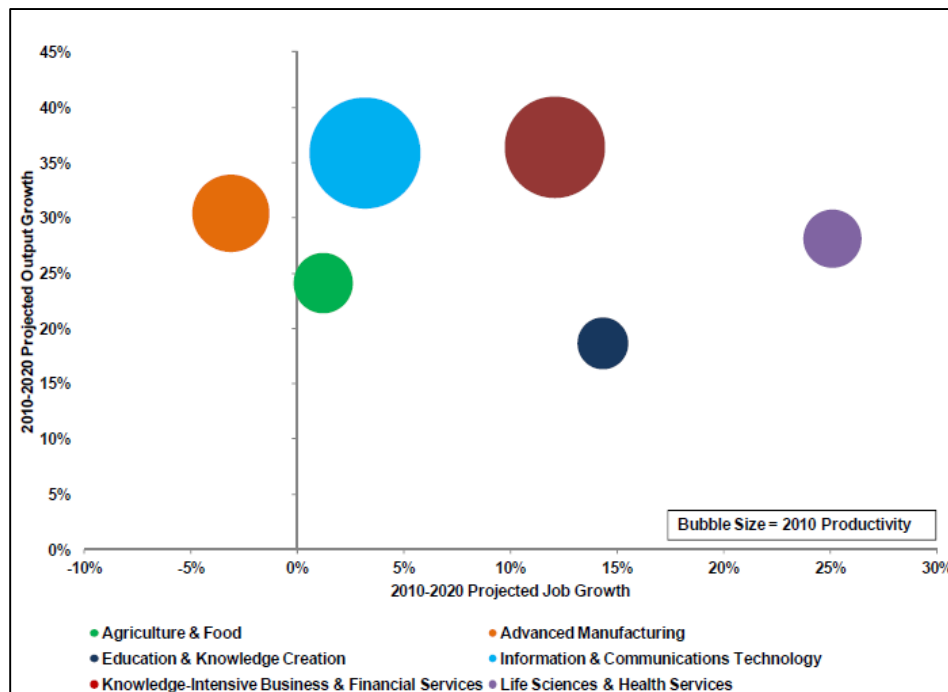
Professional schools, university extensions, specialty and trade schools, and other private postsecondary educational institutions serving the Sacramento Region include:

- Anthem College (Sacramento)
- Art Institute of California (Sacramento)
- Aviation & Electronic School of America (Colfax)
- Breining Institute (Orangevale)
- Bryan College (Gold River)
- Capital Bible College (Sacramento)
- Carrington College (Sacramento)
- Brandman University (Folsom, Roseville, Yuba City)
- DeVry University (Sacramento)
- Drexel University Sacramento (Sacramento)
- Embry-Riddle Aeronautical University (Beale AFB)
- Epic Bible College (Sacramento)
- Fuller Theological Seminary (Sacramento)
- Heald College (Roseville, Rancho Cordova)
- International Academy of Design and Technology (Sacramento)
- ITT Technical Institute (Rancho Cordova)
- Kaplan College (Sacramento)
- Le Cordon Bleu College of Culinary Arts (Sacramento)
- Lincoln Law School of Sacramento (Sacramento)
- MTI College (Sacramento)
- National University (Citrus Heights, Sacramento)
- Northwestern California University School of Law (Sacramento)
- Professional School of Psychology (Sacramento)
- Rudolf Steiner College (Fair Oaks)
- Epic Bible College (Sacramento)
- The Union Institute (Sacramento)
- Universal Technical Institute (Sacramento)
- University of the Pacific, McGeorge School of Law (Sacramento)
- University of Phoenix (Roseville, Sacramento, Elk Grove, Beale AFB)
- University of San Francisco, Sacramento Regional Campus (Sacramento)
- University of Southern California Sol Price School Of Public Policy (Sacramento)
- Weimar College (Weimar)
- Western Seminary (Sacramento)
- William Jessup University (Rocklin)

Industry Clusters

The six viable industry clusters identified in the research that was used to inform the Next Economy¹² plan ranged in size from roughly 3,000 jobs to 99,000 jobs and \$850 million to \$18 billion of output and included between 10 and 32 distinct economic activities. Projections for cluster job growth over the next 10 years ranged from approximately -3 percent to 25 percent while output projections were between about 21 percent and 36 percent.

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

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

¹² Next Economy Research Report available at:

http://www.nexteconomycapitalregion.org/uploads/Next_Economy_Research_Report_Mar_30_FINAL.pdf

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. The Sacramento Area Council of Governments (SACOG), an association of local governments that provides transportation planning and funding for the region, developed the Rural-Urban Connections Strategy (RUCS) which 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.¹³ Experts also identified components of this cluster as offering promising economic development potential in the Sacramento Region.

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

¹³ See the MIT Technology Review for one prominent source of information on this topic:
<http://www.technologyreview.com/>

insight point to economic development potential in this cluster within the Sacramento Region supported by ongoing initiatives such as Sacramento Regional Technology Alliance's (SARTA) 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.¹⁴ 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, California State University, and University of California). 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 highly productive, 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 Sacramento Area Commerce & Trade Organization's (SACTO) five-year strategic plan, which targets higher education institutions for business attraction and expansion opportunities in the Sacramento Region.

The Knowledge-Intensive Business & Financial Services cluster is treated as a cross-cutting activity and is not a core cluster in the Next Economy plan; however, it has been kept in this discussion for information value as the Sacramento Region has a notably high share of service-providing exports, many of which are high value economic activities and are comprised in this cluster. The 18 included activities support the highest output level among the identified 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.

¹⁴ Cluster report available at: <http://www.strategiceconomicresearch.org/AboutUs/cetcluster.pdf>

U.S. and Statewide Export Trends

National Trends

Although the National Export Initiative's goal of doubling exports will not be attained, there has been an impressive achievement in exports—in 2012, U.S. exports totaled \$2.2 trillion (a record) and supported 9.8 million jobs.¹⁵ Exports have been a driver of economic growth in the post-recession period—from 2009 to 2012, around 37.3 percent of U.S. GDP growth was attributed to exports, annually averaging 11.9 percent, while total GDP growth averaged 2.2 percent.¹⁶

U.S. annual export growth also exceeded the world's average growth (3.4 percent versus 2.6 percent export volume growth) and, by value, the nation's exports account for 10 percent of total world exports.¹⁷ As displayed in the table below, the top five U.S. trading partners are Canada, Mexico, China, Japan, and Germany based on 2013 total export value for goods. The North American Free Trade Agreement (NAFTA) partners, Canada and Mexico account for almost 30 percent of the total export value.

TOP U.S. EXPORT COUNTRIES IN 2013 (IN \$MILLIONS)

Country	Export Value 2013
Canada	\$300,347
Mexico	\$226,153
China	\$122,016
Japan	\$65,145
Germany	\$47,442
United Kingdom	\$47,355
Brazil	\$44,116
Netherlands	\$42,654
Hong Kong	\$42,450
Korea, South	\$41,555

Center for Strategic Economic
Research, June 2014

Data Source: U.S. Census Bureau,
U.S. International Trade Data

According to the International Trade Administration, the nation's top goods exports in 2013 included capital goods, goods that are used in producing other goods, (\$534.1 billion worth of export value); industrial supplies (\$508.2 billion); consumer goods (\$188.5 billion); automotive vehicles and parts (\$152.1 billion); foods, feeds, and beverages (\$136.0 billion); and other goods

¹⁵ International Trade Administration, National Export Initiative web site: <http://trade.gov/nei/>

¹⁶ Brookings Institution, *Export Nation 2013: U.S. Growth Post-Recession*, <http://www.brookings.edu/~media/Research/Files/Reports/2013/09/17%20export%20nation/ExportNation2013Survey.pdf>

¹⁷ IMF World Economic Outlook; WTO International Trade Statistics 2012; Bureau of Economic Analysis, U.S. Department of Commerce

(\$60.0 billion). Many of these categories have seen record export levels. Services exports also have seen record levels led by private services (\$303.9 billion), travel (\$139.6 billion), royalties and license fees (\$129.7 billion), other transportation (\$45.2 billion), passenger fares (\$41.2 billion), and government services (\$2.9 billion).

Small and medium enterprises (SMEs), companies which have fewer than 500 employees, play an important role in U.S. export activity—in 2011, about 33 percent of goods exports were linked to SMEs and about 98 percent of U.S. exporters are from companies that are SMEs.¹⁸ As SMEs also create 64 percent of net new private sector jobs,¹⁹ assisting them in increasing their reach and impact through exports is vital. The federal government has developed goals and strategies to nurture growth of exports among SME's through more efficient and focused efforts on export and financial assistance.

Another trend in national export activity is a stronger focus on services exports, which currently comprise about 30 percent of total export value. Services exports reached a record high in 2012 at \$628.1 billion, an increase of 5 percent from 2011 and 28 percent higher than the 2009 value. Additionally, two-thirds of the U.S.'s trade surplus in service exports is due to royalties & license fees as well as financial services. In terms of services exports, the European Union is the top market, but it has been losing its share in recent years to Asia, South and Central America, and the Middle East.²⁰

Travel and tourism is also playing a larger role in services exports nationwide. International travelers supported 1.2 million jobs and spent \$153 billion in 2011, creating a surplus of \$43 billion in U.S. travel services. Trade and exports related to travel and tourism accounted for 25 percent of all U.S. service exports. In January 2012, the Task Force on Travel and Competitiveness was created to increase efforts in promoting this category of services exports.²¹

Around 64 percent of the nation's exports (and 75 percent of the services exports), according to Brookings Institution, are generated within the 100 largest metropolitan areas backing up Brookings' assertion that regional economic development efforts will be a vital component of increasing exports at the nationwide level.²² Brookings' Export Nation 2013 shows that exports from the top 100 metropolitan areas account for nearly 64 percent of total 2012 export value nationwide and their total output comprises about 71 percent. Moreover, around 75 percent of services exports and 59 percent of goods exports originate within the top 100 metropolitan areas further signifying the importance of these regions to the national economy. Additionally, according to Brookings' Metro North America report, metropolitan areas in the NAFTA countries, United States, Canada, and Mexico, account for 77 percent of the countries' total

¹⁸ International Trade Administration, *U.S. Trade Overview 2012*, http://www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_002065.pdf

¹⁹ Small Business Administration, Office of Advocacy, Frequently Asked Questions, September 2012, http://www.sba.gov/sites/default/files/FAQ_Sept_2012.pdf

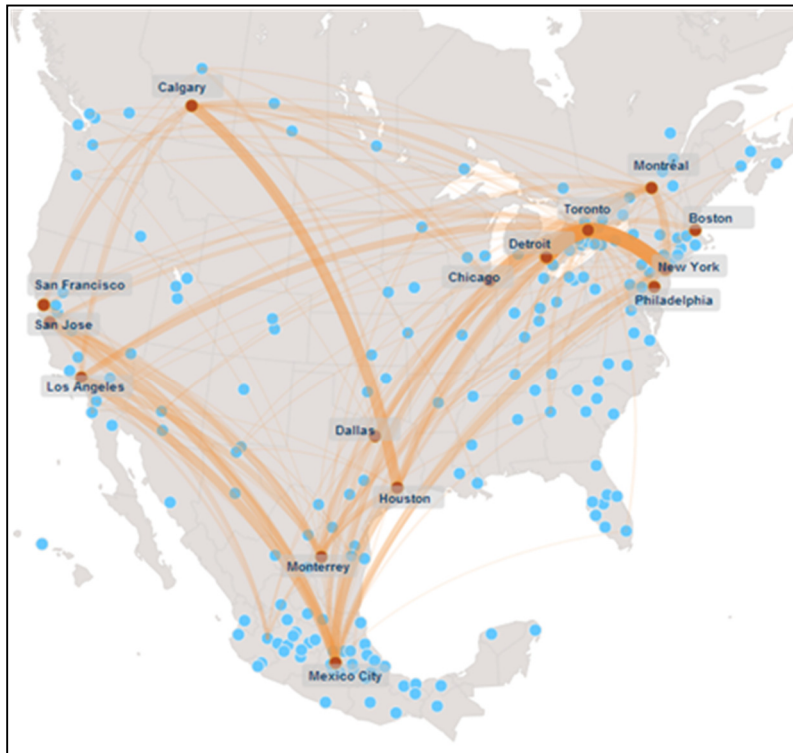
²⁰ *U.S. Trade in Services: Cross-Border Services Trade and Services Supplied Through Affiliates*, October 29, 2013, http://www.trade.gov/mas/ian/build/groups/public/@tg_ian/documents/webcontent/tg_ian_005305.pdf.

²¹ United States of America Trade Promotion Coordinating Committee, *2012 National Export Strategy Powering the National Export Initiative: Year 3*, <http://trade.gov/publications/pdfs/nes2012.pdf>.

²² Emilia Istrate, Jonathan Rothwell, and Bruce Katz, "Export Nation: How U.S. Metros Lead National Export Growth and Boost Competitiveness." (Washington, DC: Brookings Institution, 2010), p.2.

population, but creates 86 percent of the combined GDP. Advanced manufacturing sectors, such as aerospace, automotive, electronics, machinery, pharmaceuticals, and precision instruments, account for even higher shares of GDP.²³

TRADE FLOWS BETWEEN NAFTA METROPOLITAN AREAS



Center for Strategic Economic Research, June 2014
Source: Brookings Institution

Statewide Trends

According to the U.S. Census Bureau, California's total export value in 2013 was \$168 billion, about 10.6 percent of U.S. total export value. This proportion is similar to the state's share of the nation's employment (about 11 percent), but falls below its share of population and GDP, approximately 12 percent and 13 percent, respectively. Approximately 75,000 companies exported from California in 2011, 96 percent of which were SMEs. The state's largest export market is Mexico with merchandise exports totaling \$23.9 billion in 2013. Canada is the second-largest with \$18.8 billion followed by China (\$16.4 billion), Japan (\$12.7 billion), and Korea (\$8.4 billion). About 40 percent (or \$67.2 billion) of California's exports are with the 20 countries which have a free trade agreement with the U.S.—California exports to these markets are growing with NAFTA, Korea, Chile, Australia, and Israel showing the largest growth in value over the past 10 years.²⁴ California's top export industry sectors include computers, electronic products, food products, and transportation equipment.

²³ Brookings Institution, *Metro North America: Metros as Hubs of Advanced Industries and Integrated Goods Trade*, <http://www.brookings.edu/research/interactives/2013/metro-north-america>

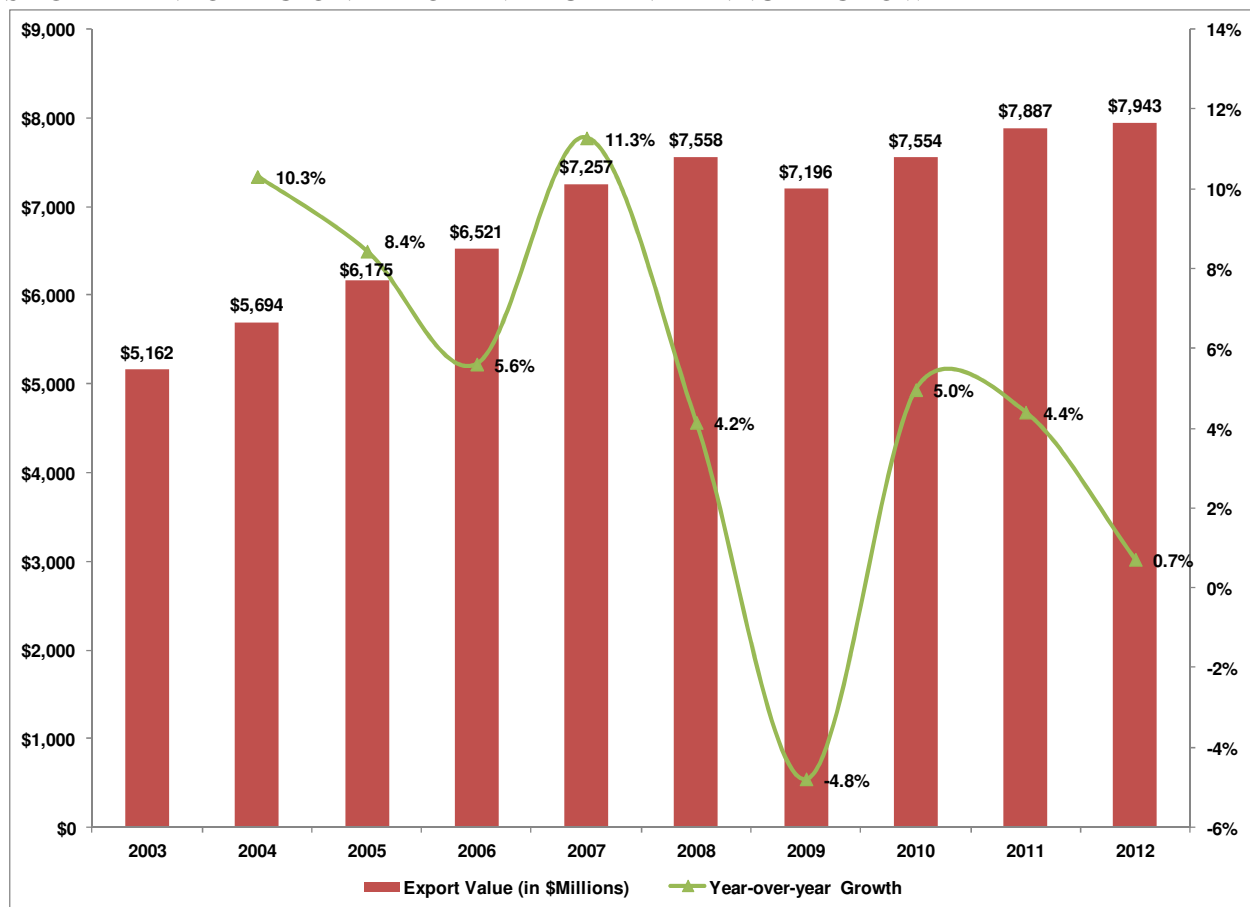
²⁴ International Trade Administration, *California: Exports, Jobs, and Foreign Investment*, April 2014, <http://www.trade.gov/mas/ian/statereports/states/ca.pdf>.

Regional Export Economy and Performance

Export Trends

With a 2012 export value of \$7.9 billion, the Sacramento Region is ranked 49th among metropolitan areas across the nation. This ranking is below the Region's current rankings in population (22), GDP (32), and employment (31) and is only slightly lower than its 2003 ranking of 46th place among all metropolitan areas. The top five metropolitan areas are Los Angeles, CA; New York, NY; Houston, TX; Chicago, IL; and Dallas, TX. The Region's total export value grew 53.9 percent from 2003 to 2012 (ranking it 561 among 941 other regions) and its absolute growth was about \$2.8 billion (ranked 48th).

SACRAMENTO REGION EXPORT VALUE AND ANNUAL GROWTH



Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

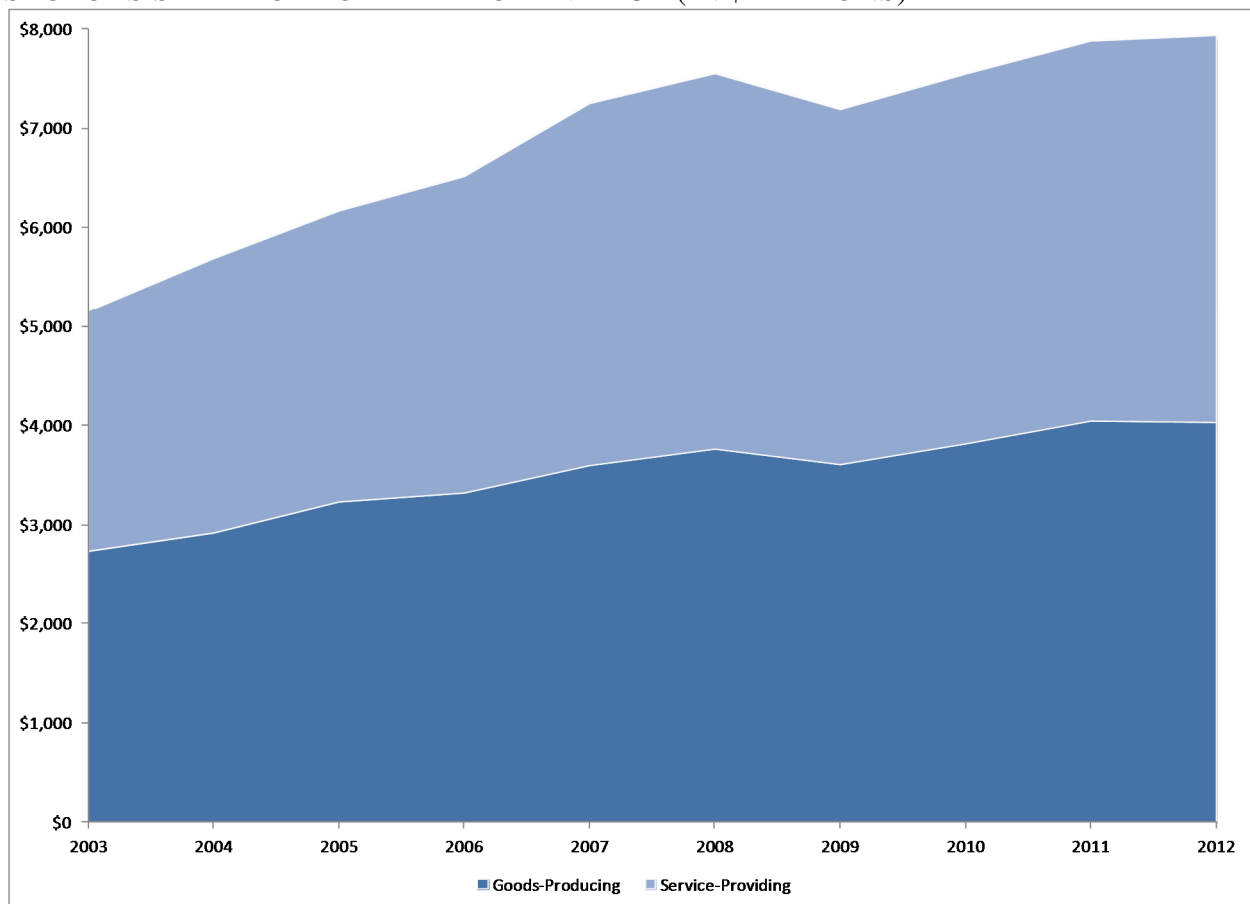
The Sacramento Region's total export value in 2012 was only 7.1 percent of output ranking it 868th out of all 941 measured metropolitan areas in terms of export intensity. The Region's export intensity has improved since 2003 when it was at a much lower level of around 5.1 percent; however, this improvement lagged other metropolitan areas as its ranking dropped from 819th in 2003. The smaller metropolitan area, Yuba City, in the Sacramento Region has notably

REGIONAL EXPORT ECONOMY & PERFORMANCE

larger 2012 export intensity (9.8 percent) than the larger Sacramento-Arden Arcade-Roseville metropolitan area (7.0 percent); however, its total export value is much smaller.

Over the past 10 years, the Region's share of goods has declined. In 2003, goods accounted for 53 percent and services comprised 47 percent of the Sacramento Region's total export value. By 2012, goods' share was 50.8 percent while services accounted for the remaining 49.2 percent—quite a variation from this composition nationwide where services account for 29.1 percent and goods comprise 70.9 percent. The Region has a relatively high proportion of services exports—out of 941 measured metropolitan areas, the Region has the 80th largest share of service export value. This demonstrates potential for further opportunity in developing service exports in the Region as it may have a competitive advantage. On the other hand, the Region's proportion of goods exports ranks it 862nd among measured metropolitan areas and suggests there is room for improvement in this category. The Region's dominance in services output is evident in its split in GRP where around 15 percent results from goods-producing sectors and 85 percent from service-providing sectors.

SACRAMENTO REGION GOODS-PRODUCING AND SERVICE-PROVIDING EXPORT SECTORS SHARE OF TOTAL EXPORT VALUE (IN \$MILLIONS)



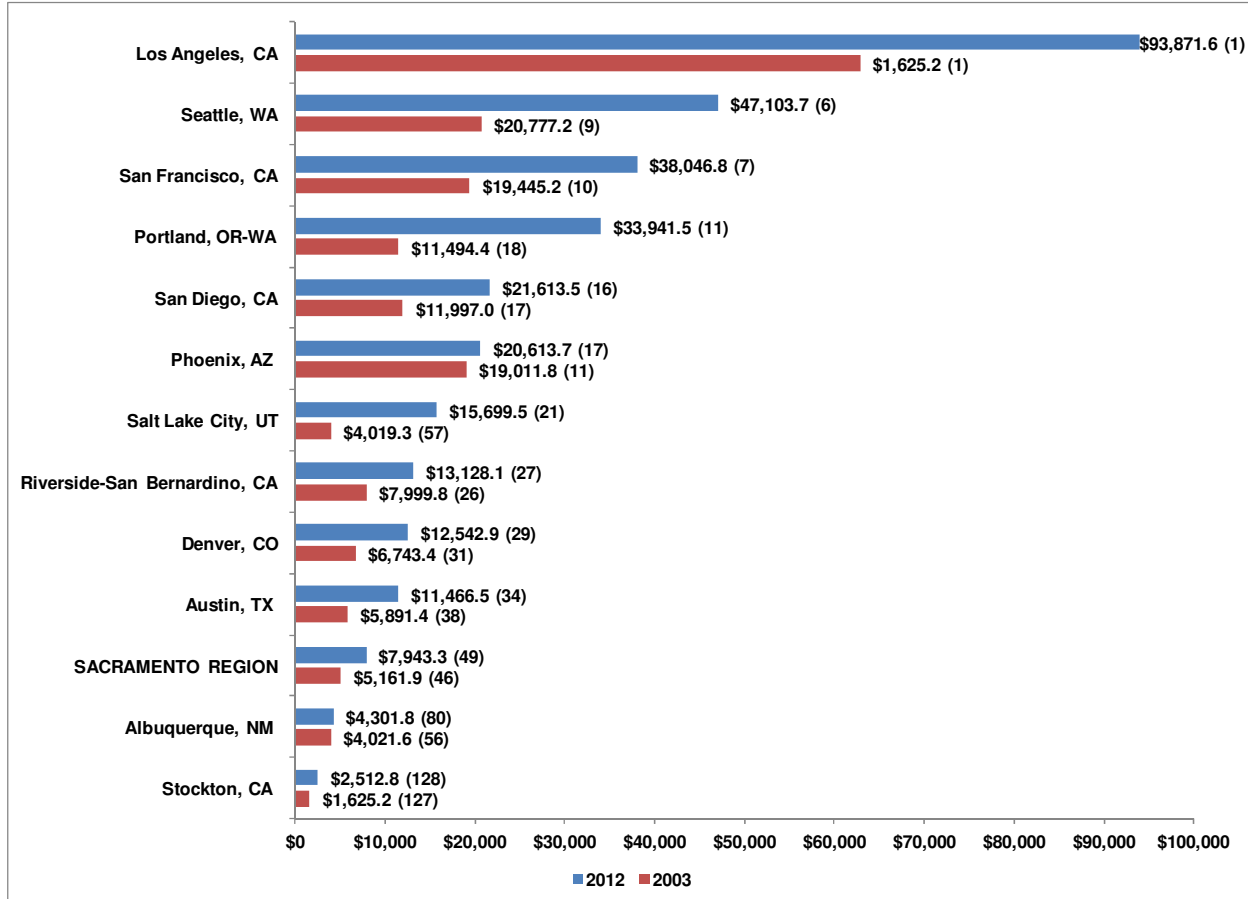
Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

Competitive Regions Rankings

Overall, in terms of total export value, export value growth, and export intensity, the Sacramento Region generally ranks far below twelve competitive regions against which it regularly benchmarks itself based on competition for business location and expansion projects. The Region's total 2012 export value placed only above the Albuquerque, NM and Stockton, CA competitive regions.

EXPORT VALUE (RANK IN NATION) OF COMPETITIVE REGIONS (IN \$MILLIONS)



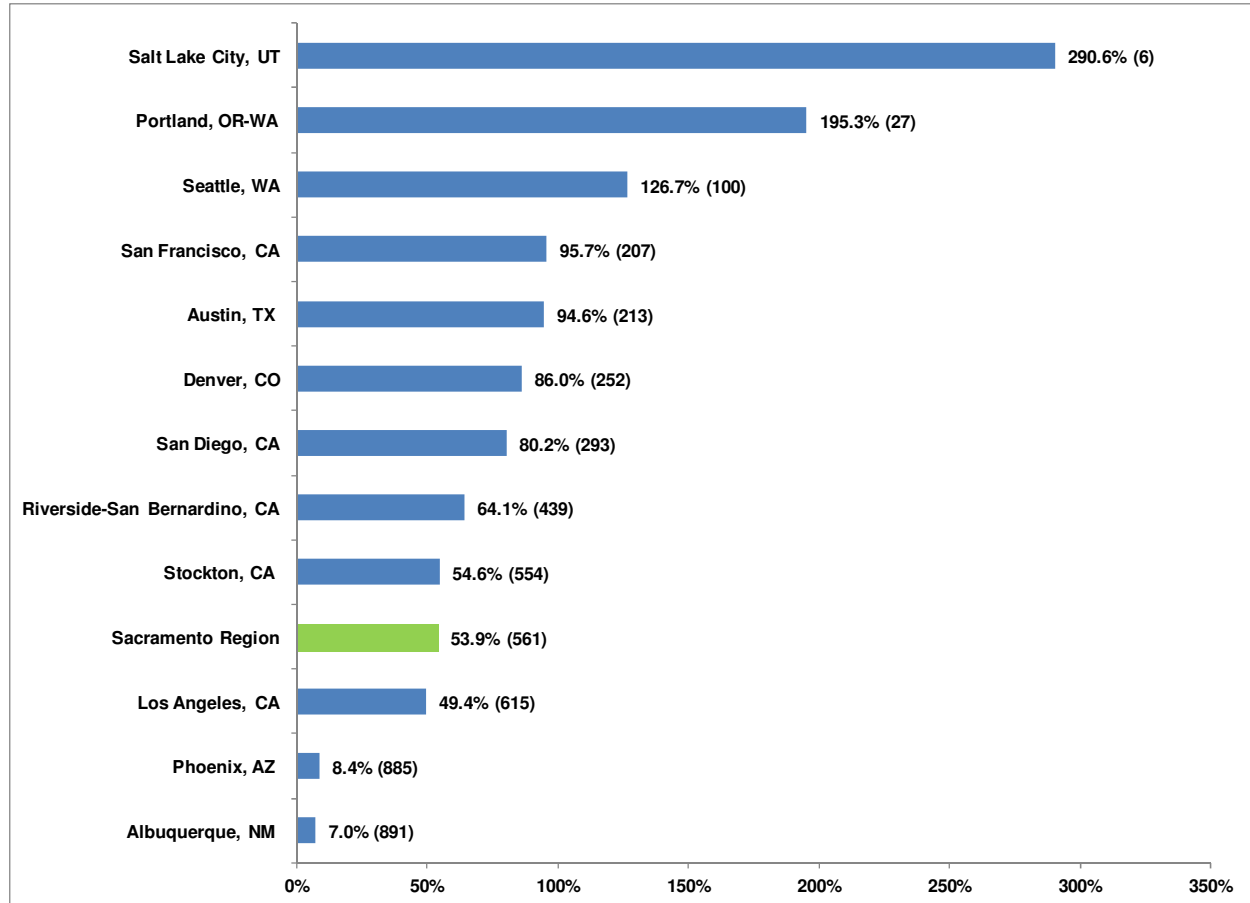
Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

REGIONAL EXPORT ECONOMY & PERFORMANCE

The Sacramento Region's 2003 to 2012 export value growth of nearly 54 percent ranked above the Los Angeles, CA; Phoenix, AZ; and Albuquerque, NM competitive regions.

2003-2012 EXPORT VALUE GROWTH (RANK IN NATION) OF COMPETITIVE REGIONS



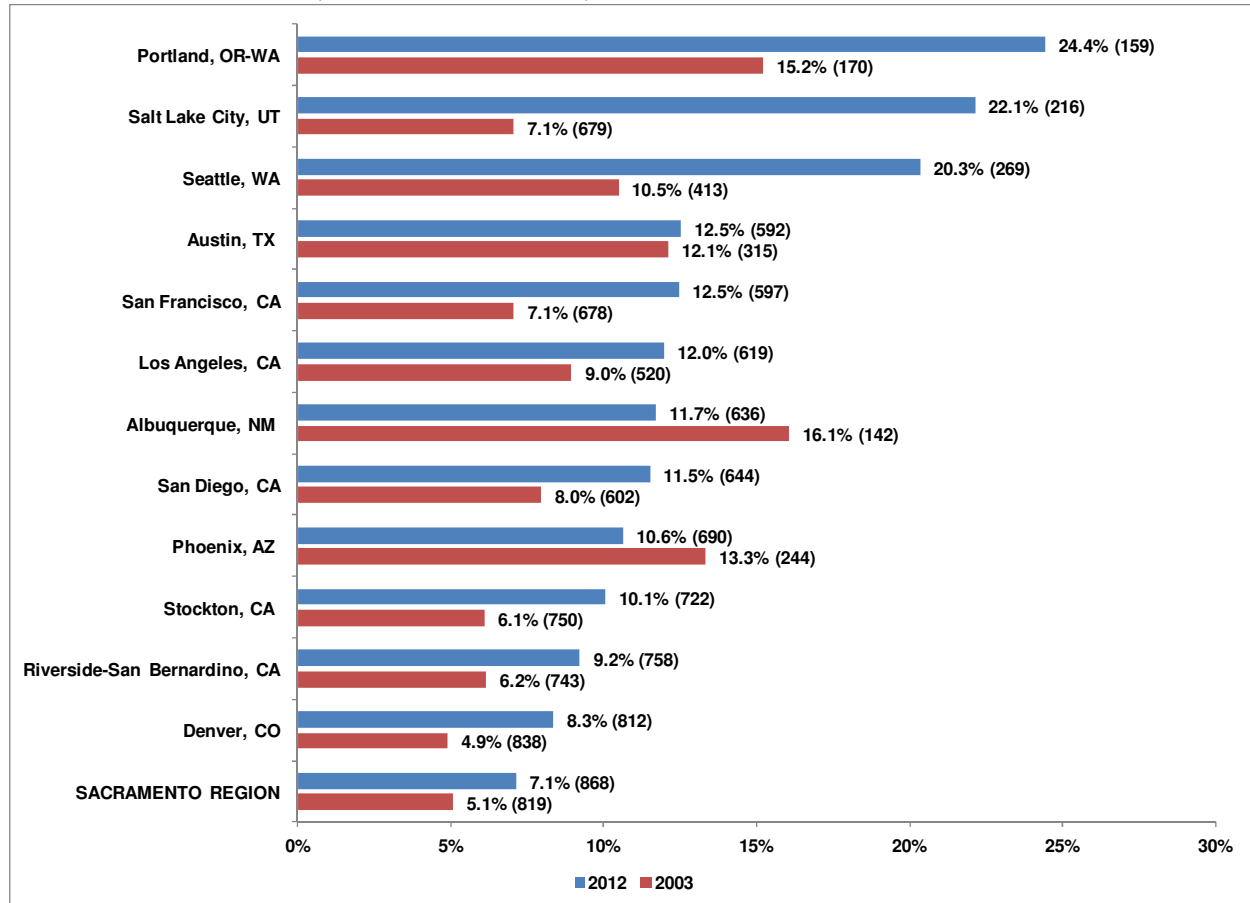
Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

REGIONAL EXPORT ECONOMY & PERFORMANCE

With 7.1 percent export intensity (proportion of total export value to total output) in 2012, the Sacramento Region placed last among all of its competitive regions, which had export intensity values between around 24 percent and 8 percent and rankings between 159 and 812.

EXPORT INTENSITY (RANK IN NATION) OF COMPETITIVE REGIONS



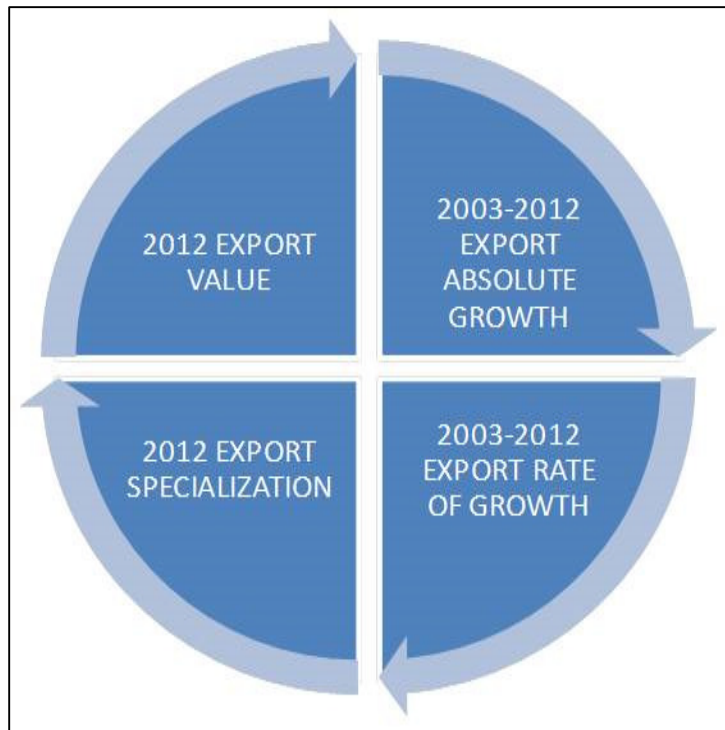
Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

Regional Export Industries

Top Performing Export Sectors

The top performing export sectors for the Sacramento Region were identified based on an analysis of the industry sectors at the four-digit North American Industry Classification System (NAICS)* level in Export Nation 2013 and their performance on the four indicators in the chart below. Goods and services sectors were analyzed separately as the services categories generally include several sectors while the goods categories align to only one four-digit NAICS. The top performing export sectors' results for these four indicators are provided in Appendix A.



Note: Export specialization is the regional export value composition relative to the national composition for the same industry sector.

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

REGIONAL EXPORT INDUSTRIES

Half of the top export goods sectors have sectors in the major categories of Computer & Electronics; Miscellaneous Manufacturing; and Agriculture. Computer Equipment and Agriculture comprise the largest shares of 2012 total export value, about 11 percent and 7 percent, respectively. Computer Equipment also has the largest share (20 percent) of the export value growth from 2003 to 2012. Precision Instruments; Agriculture; and All Other Miscellaneous Manufacturing also comprised a relatively large proportion of total export value growth in this time period, each with around 3 percent.

SACRAMENTO REGION TOP PERFORMING GOODS EXPORT SECTORS

<i>Major Industry (3-Digit NAICS)</i>	<i>2012 Export Value (\$ Millions)</i>	<i>Share of Region's Total Exports</i>	<i>Detailed Industry (4-digit NAICS)</i>	<i>2012 Export Value (\$ Millions)</i>	<i>Share of 2012 Total Exports</i>	<i>Share of 2012 Major Industry Exports</i>	<i>Share of Total Export Value Absolute Growth (2003-2012)</i>
Computers & Electronics	\$1,307.5	16.5%	Computer Equipment	\$885.9	11.2%	67.8%	20.0%
			Precision Instruments	\$189.9	2.4%	14.5%	3.0%
			Audio & Video Equipment	\$39.5	0.5%	3.0%	1.0%
Agriculture	\$557.7	7.0%	n/a	\$557.7	7.0%	n/a	2.6%
Miscellaneous Manufacturing	\$246.1	3.1%	All Other Miscellaneous Manufacturing	\$152.2	1.9%	61.8%	3.0%
			Medical Equipment & Supplies	\$94.0	1.2%	38.2%	1.7%
Machinery	\$273.3	3.4%	Agri., Constr., Mining Machinery	\$110.1	1.4%	40.3%	2.3%
Food Products	\$216.1	2.7%	Grain & Oilseed Products	\$94.6	1.2%	43.8%	1.6%
Beverage & Tobacco Products	\$63.3	0.8%	n/a	\$63.3	0.8%	n/a	1.5%
Chemicals	\$236.7	3.0%	Cleaning Products	\$54.8	0.7%	23.2%	1.4%

Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

REGIONAL EXPORT INDUSTRIES

The top export services sectors in the Sacramento Region were spread among various major categories. Management & Consulting, Financial Services, and R&D Services comprised the largest share of 2012 total exports, between around 4 percent and 5 percent each. At around 8 percent, R&D Services accounted for the largest share of total export value absolute growth followed by Management & Consulting with about 6 percent of total absolute growth.

SACRAMENTO REGION TOP PERFORMING SERVICES EXPORT SECTORS

<i>Major Industry (3-Digit NAICS)</i>	<i>2012 Export Value (\$ Millions)</i>	<i>Share of Region's Total</i>	<i>Detailed Industry (4-digit NAICS)</i>	<i>2012 Export Value (\$ Millions)</i>	<i>Share of 2012 Total Exports</i>	<i>Share of 2012 Major Industry Exports</i>	<i>Share of Total Export Value Absolute Growth (2003-2012)</i>
Engineering Services	\$362.3	4.6%	R & D Services	\$276.4	3.5%	76.3%	8.4%
			Architectural & Engineering Services	\$67.7	0.9%	18.7%	1.4%
Information & Telecom Services	\$317.1	4.0%	Telecom Services	\$205.4	2.6%	64.8%	5.2%
Management & Legal Services	\$422.8	5.3%	Management & Consulting	\$371.6	4.7%	87.9%	6.1%
Financial Services	\$345.7	4.4%	n/a	\$345.7	4.4%	n/a	4.3%
Heavy Industry Services	\$164.2	2.1%	Equipment Installation Services	\$113.9	1.4%	69.4%	2.0%
Insurance Services	\$130.9	1.6%	n/a	\$130.9	1.6%	n/a	1.9%
Travel & Tourism	\$995.3	12.5%	Accommodation Services	\$165.9	2.1%	16.7%	2.7%
Royalties*	\$707.9	8.9%	Information Technology Royalties	\$379.6	4.8%	53.6%	4.8%
			Computer & Electronic Manufacturing Royalties	\$145.8	1.8%	20.6%	3.3%

Center for Strategic Economic Research, June 2014

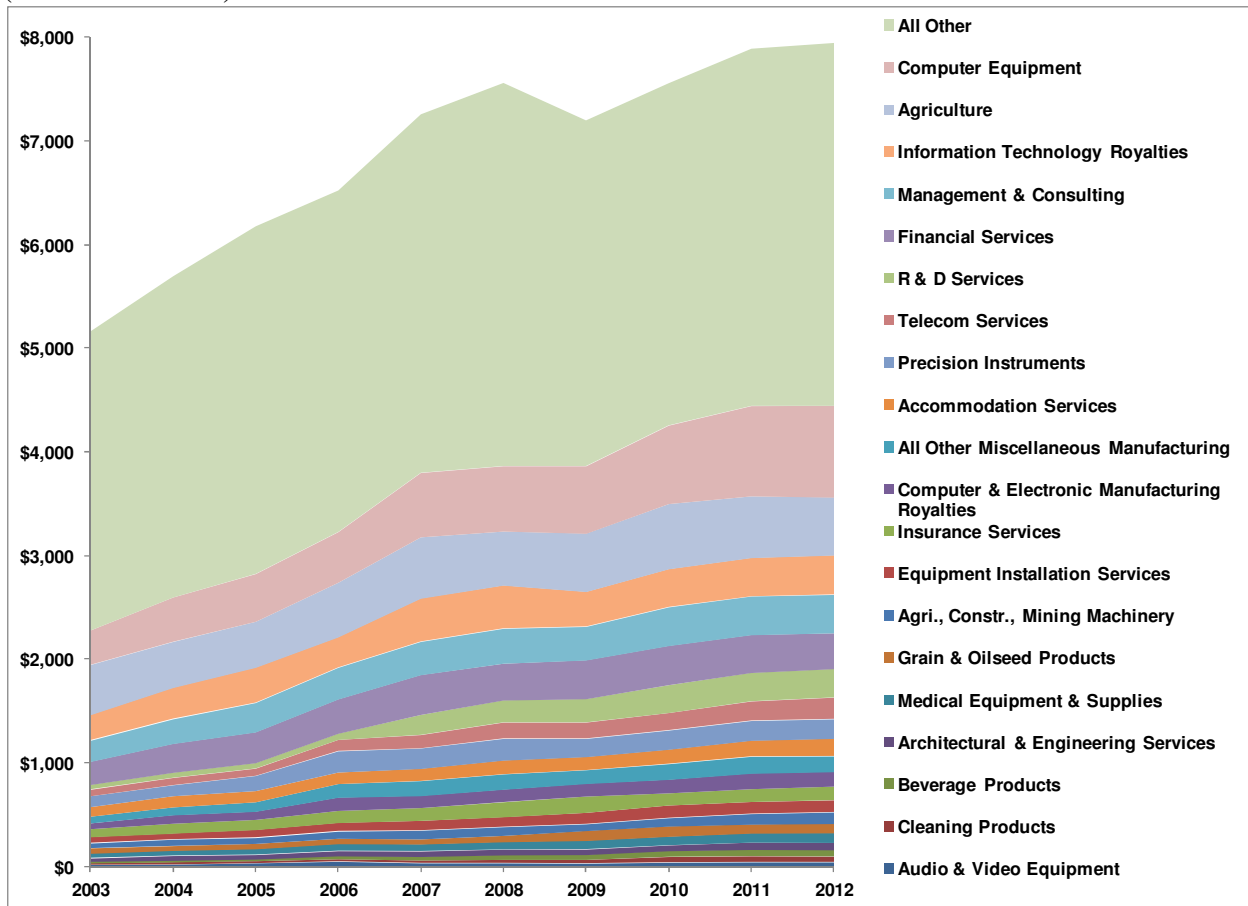
Data Source: Brookings Institution, 2013 Export Nation

*Royalties are a payment made for a use of property (e.g. book, patented invention, information technology license) to another party.

REGIONAL EXPORT INDUSTRIES

The majority (about 56 percent) of total regional export value is captured in the 20 top-performing sectors. Although some sectors which are part of the “All Other” category in the chart did not perform well in all measured indicators, there are a few that account for a relatively large share of the total export value in the Region including Aircraft Products & Parts, Retail Services, and Food & Drink Services. All reported industry sectors in Export Nation show some level of export activity in the Sacramento Region ranging from very minimal to notable.

SACRAMENTO REGION EXPORT SECTORS SHARE OF TOTAL EXPORT VALUE (IN \$MILLIONS)



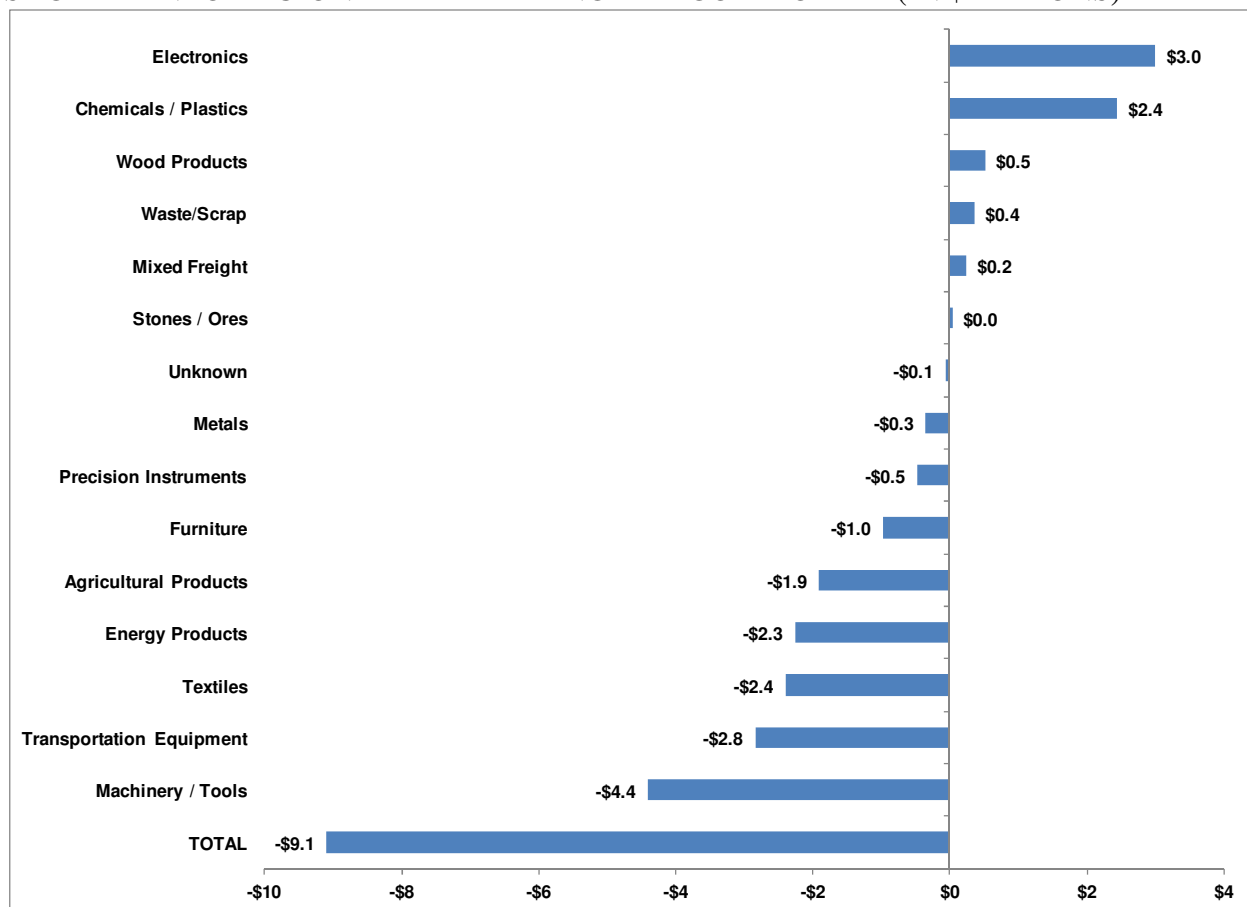
Center for Strategic Economic Research, June 2014
Data Source: Brookings Institution, 2013 Export Nation

All but six of the top export goods and services sectors are represented in the viable clusters that were identified in the research conducted for the Next Economy plan. Four of the sectors fall under the Agriculture & Food cluster, four in the Knowledge-Intensive Business & Financial Services cluster, three in the Information & Communications Technology cluster, and one in the Life Sciences & Health Services cluster.

REGIONAL EXPORT INDUSTRIES

Brookings Institution's Metro Freight research series analyzes the flow of goods trade at the metropolitan area level. The chart below provides the Sacramento Region's trade balance by commodity. The Region runs a trade surplus (exports are greater than imports) in Electronics, Chemicals/Plastics, Wood Products, Waste/Scrap, and Mixed Freight commodities with no growth in Stones/Ores and deficits in the other categories. It is important to note, however, that not all commodities should be expected to be sold at a surplus as inflows (or purchases) that exceed outflows (sales) can be necessary to sustain the regional economy and is common among the largest metropolitan areas. Additionally, lower goods movement levels do not necessarily indicate a weak economy as some metropolitan areas, such as the Sacramento Region, are more specialized in tradable services such as consulting and other business services than goods movement.

SACRAMENTO REGION TRADE BALANCE BY COMMODITY (IN \$BILLIONS)



Center for Strategic Economic Research, June 2014
Data Source: Brookings Institution, Metro Freight Series

Agricultural Exports

The Sacramento Region has a rich agricultural history and this sector is still an important part of the Region's economy today as reflected in the prominence of the Agriculture and Food cluster in the Next Economy plan. The World Food Center at UC Davis will also drive innovation and growth in this industry by linking research and teaching with innovators, philanthropists, industry, and public and social leaders. The Sacramento Region's agricultural industry has strong ties to San Joaquin County despite it not being part of the study area. About half of the Region's products come from San Joaquin County and its Port of Stockton also serves as an asset to the Sacramento Region. Research from the United States Department of Agriculture, based on reports from the California County Agriculture Commissioners office and the California Department of Food and Agriculture, state that one-third, or \$607 million, of the Sacramento Region's \$1.8 billion farm gate (gross value of agricultural products at the farm) is exported. Sixty percent of the total farm gate is produced in Sutter and Yolo Counties (each 30 percent). The Region's top six farm gate agricultural products are rice (17 percent), walnuts (13 percent), wine grapes (8 percent), processed tomatoes (7 percent), milk (4 percent), and dried plums (4 percent).

International Students and Tourism

International students within the Sacramento Region are considered a service export to the Region as they bring foreign money into the economy and pay a higher fee (non-resident tuition rate) for their education pursuits. Attracting international students is becoming a more prevalent growth strategy adopted by educational institutions to offset budget challenges. In addition to the benefit of increased net new wealth in the local economy, foreign students also initiate and facilitate collaboration between the universities in the host country and the home country. These students can also serve as envoys developing connections with the home country business community which can lead to international partnerships and further economic growth. The Next Economy plan also considers the importance of the education industry with the inclusion of the Education & Knowledge Creation cluster.

Sacramento State enrolls around 500 international students per year out of a total student body of about 28,000. University of California, Davis (UC Davis) also serves a notable international student population—just over 1,400 undergraduates and nearly 1,200 graduate students in 2013. UC Davis enrolled a record number of international students for its Fall 2014 term, 4,284 students from abroad, which is second only to UC San Diego with 5,080 international students. UC Davis recently put more focus on increasing the number of its international students as part of its overall growth strategy.

International students are an important service export for Drexel University Sacramento, particularly in the master's program in Finance. The international program started in the fall of 2011 with 11 international students from China, 30 students in 2012, and 22 students in 2013. At about \$60,000 for tuition for the 18 month program, plus books and other fees, this is a notable revenue source for the university and contributes to the local trade economy. Currently, Drexel's students are primarily from China with a few from India, but the university plans to reach out to other countries in the next 5 years including Korea, Turkey, and Brazil.

REGIONAL EXPORT INDUSTRIES

Mapping the Nation, an online interactive mapping program, estimates economic value of international students in various geographies, including the Sacramento Region. According to their estimates, the approximate 4,400 international students from all institutions in the Region contribute approximately \$153 million to the economy.

SACRAMENTO REGION INTERNATIONAL STUDENT ECONOMIC VALUE

<i>Indicator</i>	<i>Value</i>
Economic Contributions of International Students & Dependents to U.S. Economy 2012-13	\$153,071,435
# of International Students (Undergraduate & Graduate) at Higher Education Institutions	4,369

Center for Strategic Economic Research, June 2014
Data Source: Mapping the Nation

International tourism is another service export industry that is seeing a bigger focus nationwide with efforts to promote this category of exports. The Sacramento Region, however, does not have a significant draw of international visitors with only 2 percent of passengers arriving at the Sacramento International Airport from an international destination (Sacramento County Airport System, Economic Impact Study, 2011). It is important to note that the Sacramento International Airport envisions enhancing its international flights in its long-term plans. While the airport is making this transition, international visitors can easily access the Region from other airports in close proximity such as San Francisco.

Regional Export Markets

U.S. Census Bureau International Trade Statistics provides detailed export data on goods sectors and international markets. While this data is only provided at the national level, it does provide a good indicator on which markets the Sacramento Region may want to target for its export efforts with a particular focus on the top export sectors specified in the previous section as well as the viable clusters designated in the Next Economy plan. The Census Bureau provides this data at the six-digit NAICS level so data was collected and aggregated for each four-digit sector in the top export and cluster industry lists. Finally, these were then summed up to determine the overall top 10 export markets for both the top export and cluster industry lists. These markets reflect only the goods sectors as detailed data for services sectors is not available from the Census Bureau—more information on target export markets for the services sectors can be found in Part Two of the Market Assessment, which includes an overview of regional survey and interview responses.

The analysis of the top export industries combined shows that the five international markets that show the most potential to target are: Canada, Mexico, China, Japan, and Hong Kong. Of the \$311.7 billion dollars in exports worldwide attributed to these sectors, Canada and Mexico account for nearly one-third (28 percent).

POTENTIAL INTERNATIONAL MARKETS FOR SACRAMENTO REGION TOP PERFORMING EXPORT SECTORS COMBINED

<i>Country</i>	<i>2013 Exports (in \$1000s)</i>	<i>% of World Total for Top Sectors</i>
World	\$311,671,778	
Canada	\$47,910,227	15.4%
Mexico	\$39,377,433	12.6%
China	\$30,410,831	9.8%
Japan	\$16,807,202	5.4%
Hong Kong	\$10,432,104	3.3%
Germany	\$10,265,121	3.3%
Netherlands	\$9,452,389	3.0%
Belgium	\$8,958,453	2.9%
United Kingdom	\$8,169,751	2.6%
Brazil	\$7,915,631	2.5%

Center for Strategic Economic Research, June 2014

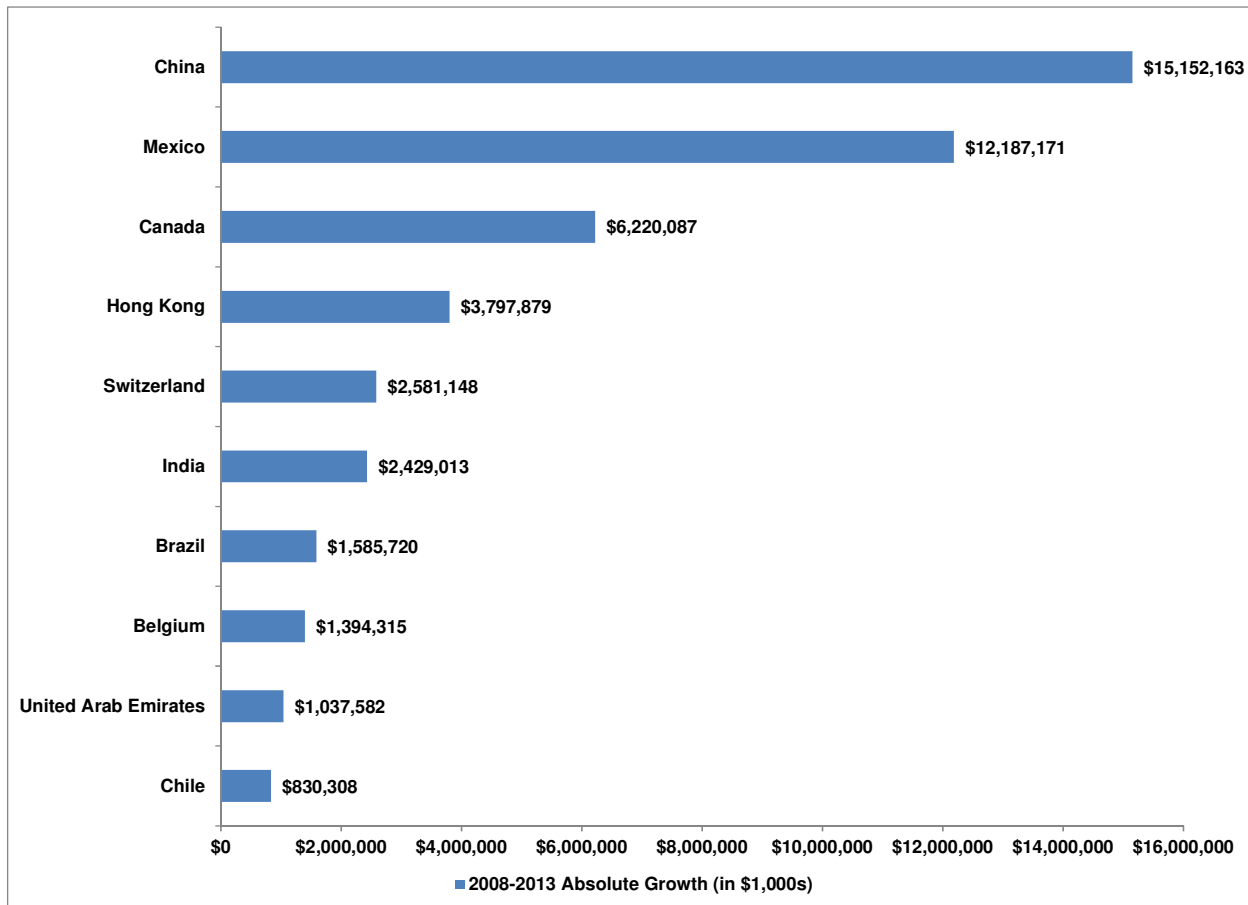
Data Source: U.S. Census Bureau, International Trade Statistics

Note: Reflects the following sectors available from the data source: 3341, 3121, 3399, 3391, 3112, 3256, 3345, 3343, 3331, and 1111.

REGIONAL EXPORT MARKETS

In terms of absolute growth of export value from 2008 to 2013, China, Mexico, Canada, and Hong Kong show strongest performance among these sectors, but Switzerland and India also showed increased demand for these sectors, placing fifth and sixth. Japan, one of the top markets based on 2013 value, actually showed a decline in export value for these combined sectors in this time period.

2008-2013 ABSOLUTE GROWTH OF POTENTIAL INTERNATIONAL MARKETS' EXPORT VALUE FOR TOP PERFORMING EXPORT SECTORS



Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, International Trade Statistics

Note: Reflects the following sectors available from the data source: 3341, 3121, 3399, 3391, 3112, 3256, 3345, 3343, 3331, and 1111.

REGIONAL EXPORT MARKETS

The Agriculture; Agricultural, Construction, Mining Machinery; and Grain & Oilseed Products sectors showed the greatest variation from the combined top performing export sectors' international market list based on total export value. Five or more of their top international markets differed from the combined list including markets such as South Korea, Egypt, Australia, and South American countries like Colombia, Venezuela, and Chile.

POTENTIAL INTERNATIONAL MARKETS FOR TOP PERFORMING EXPORT SECTORS (BASED ON 2013 TOTAL EXPORT VALUE DEMAND)

<i>Computer Equipment</i>	<i>Precision Instruments</i>	<i>Audio & Visual Equipment</i>	<i>Agriculture</i>	<i>All Other Miscellaneous Manufacturing</i>	<i>Medical Equipment & Supplies</i>	<i>Agri., Constr., Mining Machinery</i>	<i>Grain & Oilseed Products</i>	<i>Beverage & Tobacco Products</i>	<i>Cleaning Products</i>
Mexico	China	Canada	China	Hong Kong	Japan	Canada	Mexico	Canada	Canada
Canada	Mexico	Mexico	Mexico	Israel	Netherlands	Mexico	Canada	China	Mexico
China	United Arab Emirates	Japan	Japan	Canada	Canada	Australia	Philippines	Mexico	China
Netherlands	Canada	Hong Kong	Brazil	India	Belgium	Brazil	Japan	Japan	United Kingdom
Brazil	Japan	Germany	Indonesia	Switzerland	Germany	China	Venezuela	United Kingdom	Japan
Hong Kong	Brazil	China	Taiwan	Belgium	Mexico	Russia	Colombia	Germany	Australia
United Kingdom	Hong Kong	Paraguay	Nigeria	Mexico	China	Chile	China	Australia	South Korea
Japan	Singapore	United Kingdom	Egypt	United Kingdom	Australia	South Africa	Egypt	South Korea	Netherlands
Germany	Belgium	Brazil	Germany	Japan	Switzerland	Belgium	Dominican Republic	France	Hong Kong
Singapore	Saudi Arabia	Chile	South Korea	Germany	Singapore	Colombia	Turkey	Netherlands	Brazil

Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, International Trade Statistics

Note: Reflects the following sectors available from the data source: 3341, 3121, 3399, 3391, 3112, 3256, 3345, 3343, 3331, and 1111.

REGIONAL EXPORT MARKETS

The Audio & Visual Equipment; Agriculture; Grain & Oilseed Products; and Beverage Products sectors each had six or more international markets which varied from the combined top performing sectors list based on export value growth. These include Vietnam, Peru, Italy, Colombia, Thailand, Philippines, and Malaysia, among others.

POTENTIAL INTERNATIONAL MARKETS FOR TOP PERFORMING EXPORT SECTORS (BASED ON EXPORT VALUE GROWTH 2008-2013)

<i>Computer Equipment</i>	<i>Precision Instruments</i>	<i>Audio & Visual Equipment</i>	<i>Agriculture</i>	<i>All Other Miscellaneous Manufacturing</i>	<i>Medical Equipment & Supplies</i>	<i>Agri., Constr., Mining Machinery</i>	<i>Grain & Oilseed Products</i>	<i>Beverage & Tobacco Products</i>	<i>Cleaning Products</i>
Mexico	China	Mexico	China	Hong Kong	Belgium	Canada	Mexico	China	Canada
Canada	Mexico	Canada	Brazil	India	Japan	Mexico	Canada	Canada	China
United Arab Emirates	United Arab Emirates	Hong Kong	Vietnam	Switzerland	Canada	Equatorial Guinea	Philippines	Mexico	Mexico
Peru	Canada	Germany	Indonesia	China	China	Iraq	China	Japan	Hong Kong
Hong Kong	Japan	Colombia	Thailand	Monaco	Germany	South Korea	Egypt	Vietnam	South Korea
Ecuador	Brazil	Chile	Russia	Sint Maarten	Netherlands	China	Poland	Germany	Australia
Chile	Hong Kong	Singapore	Malaysia	Germany	Singapore	Peru	Vietnam	Netherlands	Netherlands
Colombia	Singapore	Peru	Peru	Singapore	Mexico	Chile	Ecuador	South Korea	Brazil
Czech Republic	Belgium	Afghanistan	Italy	Cayman Islands	Brazil	Brazil	Venezuela	Hong Kong	Singapore
Hungary	Saudi Arabia	Italy	Switzerland	Qatar	Australia	South Africa	Colombia	France	Chile

Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, International Trade Statistics

Note: Reflects the following sectors available from the data source: 3341, 3121, 3399, 3391, 3112, 3256, 3345, 3343, 3331, and 1111.

REGIONAL EXPORT MARKETS

Similar to the top export sectors, many sectors under the viable clusters are service-oriented; therefore, detailed analysis of potential international markets was limited to goods-producing sectors. The majority of sectors in the Agriculture & Food, Advanced Manufacturing, and Information & Communications Technology clusters were goods sectors so a more comprehensive analysis of export markets was possible. Life Sciences & Health Services and Education & Knowledge Creation had between one and three goods sectors. Nevertheless, this analysis provides a general understanding of international markets that demand products (and likely related services) for export from the U.S. within the Next Economy cluster areas. The table below shows the top international markets for target under each viable cluster based on 2013 export value. The results present many of the same potential markets as in the top export sectors analysis: Canada, China, Mexico, and Japan.

POTENTIAL INTERNATIONAL MARKETS FOR NEXT ECONOMY VIABLE CLUSTERS (BASED ON 2013 EXPORT VALUE)

<i>Agriculture & Food</i>	<i>Advanced Manufacturing</i>	<i>Information & Communications Technology</i>	<i>Life Sciences & Health Services</i>	<i>Education & Knowledge Creation</i>
Canada	Canada	Mexico	Canada	Canada
China	Mexico	Canada	Japan	United Kingdom
Mexico	China	China	Netherlands	Mexico
Japan	Germany	Hong Kong	Belgium	Japan
Brazil	Japan	South Korea	Germany	Australia
South Korea	United Kingdom	Brazil	China	China
Australia	Brazil	Malaysia	Mexico	Germany
Taiwan	United Arab Emirates	Japan	United Kingdom	Singapore
Indonesia	France	Singapore	Italy	France
Colombia	South Korea	Netherlands	France	Netherlands

Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, International Trade Statistics

Note: The Knowledge-Intensive Business & Financial Services cluster was not adopted into the final Next Economy plan; therefore, it has not been analyzed in this section.

REGIONAL EXPORT MARKETS

As there are quite a number of industry sectors under each cluster, classification of industry sectors in 2008 and 2013 varied somewhat so it was necessary to estimate the five-year growth analysis in some cases. The table below provides the international markets which ranked the highest in terms of absolute growth in export value from 2008 to 2013. China, Canada, Mexico, Japan, and Hong Kong currently have a strong demand for the cluster sectors, but also have shown continued growth in the past five years. The countries in bold represent those which did not place in the top ten markets based on 2013 value. These “growth markets” may have increased demand for products and related services under each industry cluster and could be considered an export market to target moving forward.

POTENTIAL INTERNATIONAL MARKETS FOR NEXT ECONOMY VIABLE CLUSTERS (BASED ON 2008-2013 ABSOLUTE GROWTH IN EXPORT VALUE)

<i>Agriculture & Food</i>	<i>Advanced Manufacturing</i>	<i>Information & Communications Technology</i>	<i>Life Sciences & Health Services</i>
China	Mexico	Mexico	China
Canada	China	Canada	Belgium
Mexico	Canada	Hong Kong	Japan
Brazil	United Arab Emirates	United Arab Emirates	Canada
Hong Kong	Saudi Arabia	Colombia	Italy
Philippines	South Korea	Brazil	Mexico
Indonesia	Australia	Israel	Netherlands
Vietnam	Hong Kong	French Guiana	Germany
Chile	Indonesia	Saudi Arabia	Brazil
Equatorial Guinea	Qatar	Chile	Singapore

Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, International Trade Statistics

Note: Due to data limitations for 2008, information for the sectors under the Education & Knowledge Creation cluster has not been included in this analysis.

REGIONAL EXPORT MARKETS

The countries which saw the largest increase in total U.S. exports from 2008 to 2013 include Mexico, China, Canada, Hong Kong, and Brazil—similar results as those international markets present in the top export sector and viable cluster sector analyses. Japan, however, did not place in this top ten listing.

TOP GROWTH U.S. EXPORT COUNTRIES (BASED ON ABSOLUTE GROWTH IN \$MILLIONS)

Country	Export Value		2008-2013 Growth	
	2008	2013	%	Absolute
Mexico	\$151,539	\$226,153	49.2%	\$74,614
China	\$71,457	\$122,016	70.8%	\$50,559
Canada	\$261,381	\$300,347	14.9%	\$38,966
Hong Kong	\$21,633	\$42,450	96.2%	\$20,817
Brazil	\$32,910	\$44,116	34.1%	\$11,206
United Arab Emirates	\$15,749	\$24,607	56.2%	\$8,858
Colombia	\$11,439	\$18,606	62.7%	\$7,168
Korea, South	\$34,807	\$41,555	19.4%	\$6,748
Saudi Arabia	\$12,478	\$18,988	52.2%	\$6,510
Panama	\$4,913	\$10,782	119.4%	\$5,868

Center for Strategic Economic Research, June 2014

Data Source: U.S. Census Bureau, U.S. International Trade Data

Similar to the nation, California's top growth markets (based on absolute growth) include China, Mexico, and Hong, but India and Taiwan take Canada's and Brazil's place in the top five. In fact, Brazil is not even included in the state's top ten growth markets. California exports to Japan also declined, mirroring the nationwide trend.

TOP GROWTH CALIFORNIA EXPORT COUNTRIES (BASED ON ABSOLUTE GROWTH, IN \$MILLIONS)

Country	Export Value		2008-2013 Growth	
	2008	2013	%	Absolute
China	\$10,982	\$16,359	49.0%	\$5,377
Mexico	\$20,472	\$23,933	16.9%	\$3,460
India	\$2,329	\$5,262	126.0%	\$2,933
Taiwan	\$5,149	\$7,472	45.1%	\$2,323
Hong Kong	\$5,688	\$7,796	37.1%	\$2,108
Canada	\$17,850	\$18,819	5.4%	\$969
South Korea	\$7,747	\$8,394	8.4%	\$647
Netherlands	\$4,348	\$4,757	9.4%	\$408

Center for Strategic Economic Research, June 2014

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

Specific country-level data is not available for the Sacramento Region, but an analysis of the larger export regions show that the absolute majority of the Region's exports go to the countries

REGIONAL EXPORT MARKETS

within Asia. Although its export levels are much smaller, South America has shown a relatively strong increase over the past five years, both in terms of percentage and absolute growth.

TOP GROWTH SACRAMENTO REGION EXPORT REGIONS (BASED ON ABSOLUTE GROWTH)

<i>Export Region</i>	<i>2007</i>	<i>2012</i>	<i>2007-2012 Growth</i>	
			<i>%</i>	<i>Absolute</i>
APEC	\$2,444,966,451	\$3,845,531,719	57.3%	\$1,400,565,268
Asia	\$1,221,754,387	\$2,285,202,959	87.0%	\$1,063,448,572
South America	\$105,523,952	\$577,359,319	447.1%	\$471,835,367
NAFTA	\$1,066,186,915	\$1,308,728,305	22.7%	\$242,541,390
OPEC	\$49,256,518	\$193,592,656	293.0%	\$144,336,138

Center for Strategic Economic Research, June 2014

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

APPENDIX A

Appendix A

The table below displays the top performing export sectors' results for the four indicators analyzed.

TOP PERFORMING EXPORT SECTORS' INDICATOR RESULTS

<i>Detailed Industry</i>	<i>2012 Export Value (\$ Millions)</i>	<i>2003-2012 Export Value Growth Millions)</i>	<i>2003-2012 Export Rate of Growth</i>	<i>2012 Export Specialization</i>
Computer Equipment	\$885.9	\$554.9	167.6%	466.9%
Agriculture	\$557.7	\$72.6	15.0%	196.9%
Precision Instruments	\$189.9	\$84.6	80.3%	97.4%
All Other Miscellaneous Manufacturing	\$152.2	\$83.8	122.6%	94.0%
Agri., Constr., Mining Machinery	\$110.1	\$63.6	136.7%	54.7%
Grain & Oilseed Products	\$94.6	\$44.0	86.9%	164.2%
Medical Equipment & Supplies	\$94.0	\$46.1	96.4%	81.4%
Beverage Products	\$63.3	\$42.1	198.2%	238.1%
Cleaning Products	\$54.8	\$37.7	220.7%	92.9%
Audio & Video Equipment	\$39.5	\$28.0	243.4%	100.6%
Information Technology Royalties	\$379.6	\$132.5	53.6%	219.8%
Management & Consulting	\$371.6	\$168.6	83.0%	286.2%
Financial Services	\$345.7	\$119.1	52.6%	126.0%
R & D Services	\$276.4	\$232.8	534.4%	293.2%
Telecom Services	\$205.4	\$143.3	230.8%	391.7%
Accommodation Services	\$165.9	\$74.2	80.9%	133.4%
Computer & Electronic Manufacturing Royalties	\$145.8	\$91.3	167.6%	161.1%
Insurance Services	\$130.9	\$53.3	68.7%	198.7%
Equipment Installation Services	\$113.9	\$56.5	98.5%	205.3%
Architectural & Engineering Services	\$67.7	\$38.4	131.2%	201.7%

Center for Strategic Economic Research, June 2014

Data Source: Brookings Institution, 2013 Export Nation

Note: Export specialization is the regional export value composition relative to the national composition for the same industry sector.

Part II: Market Survey and Local Intelligence Interviews

As part of:



Prepared by:

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NORTHERN CALIFORNIA



SECTION 2- The Market Survey and Local Intelligence Interviews

The Market Survey and Interview portion of the Market Assessment reflect the on-the-ground local intelligence that was gathered. The data portion—**Market Scan**—was conducted by the Center for Strategic Economic Research and are the results presented in Part One of this report. The direct outreach portion—**Market Survey and Local Intelligence Interviews**—was executed through an online survey and individual interviews with a broad cross section of companies. The Market Survey is a quantitative look at the data collected while the Interviews are a qualitative examination of feedback received directly from local business representatives. A summary of these results are presented in this section of the report.

MARKET SURVEY

The California Capital Region (CCR) Market Survey was conducted using the online tool “Survey Monkey” over a two month period in the spring of 2014. The survey was distributed to thousands of businesses in the six-county Region through the networks of the Core Committee and the 30-member Steering Committee. The survey asked questions that first profiled the business, separating non-exporters from companies that were exporting internationally. In total, there were 26 questions, but if a company was not currently exporting, 17 of the questions were hidden. Business location, headquarters, employees, GDP and industry were all questions included. The bulk of the survey focused on exporting and exporting resources utilized by businesses. For companies that were not exporting a product or service internationally, the survey asked them a series of questions on the reasons they had not considered international markets. 134 surveys were completed.

BUSINESS DEMOGRAPHICS

Business location was listed as an optional question. 96 people responded, and of those 71 were located within the six-county Region as illustrated in Figure 1. The majority of respondents, 53 percent, were located in Sacramento County. 15 percent were located in El Dorado County, 13 percent in Placer County, 13 percent in Yolo County, four percent in Sutter County and only two percent in Yuba County.

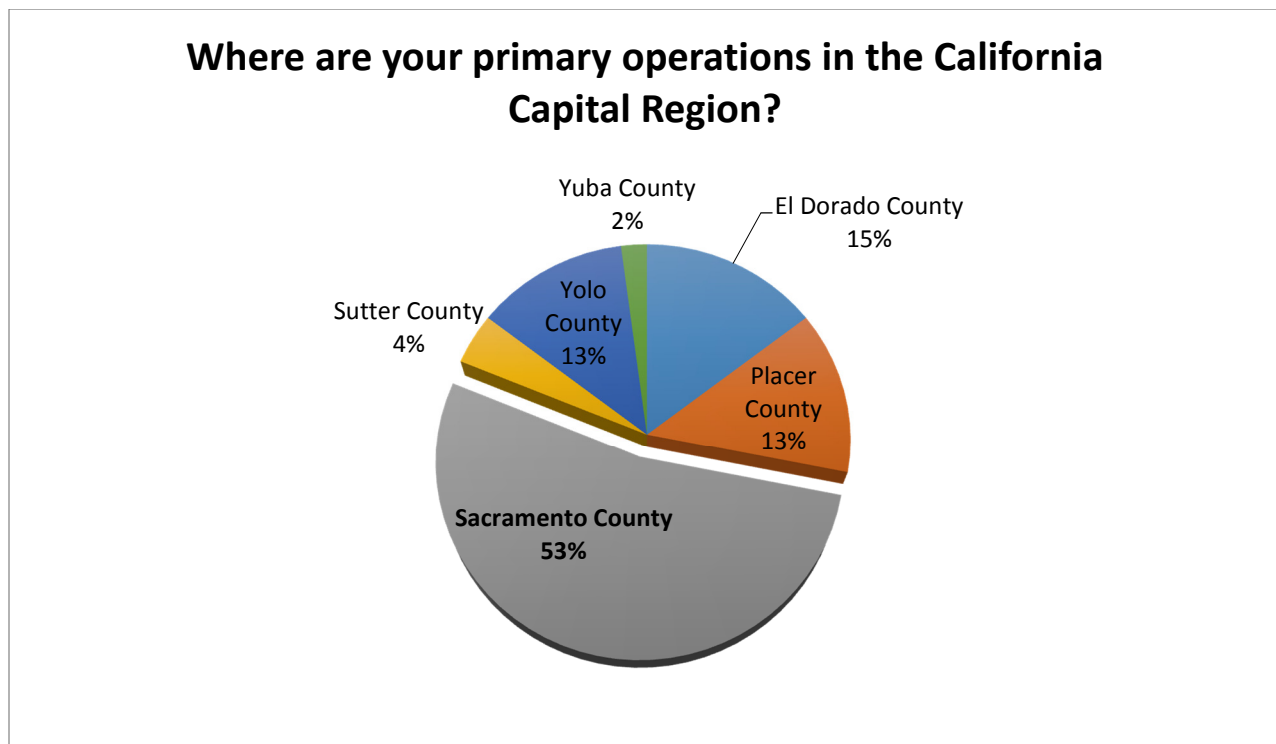


Figure 1

There were responses from a wide variety of industry sectors (Figure 2), the two most prevalent being Professional and Business Services at 18 percent and Manufacturing at 13 percent. 90 percent of respondents identified their business as small and medium enterprises or SME's, where an SME is defined as a firm employing between ten and 250 employees.

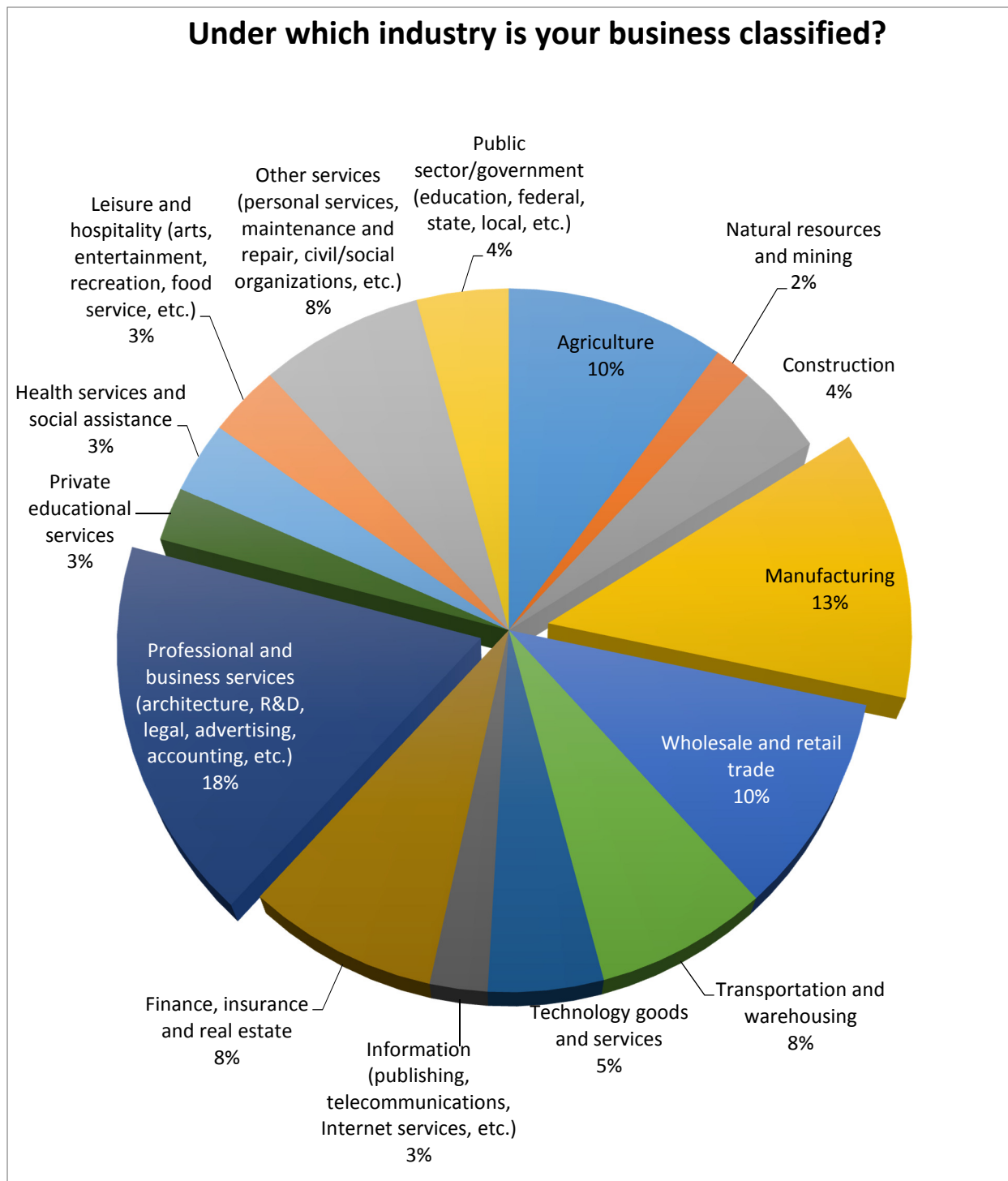


Figure 2

NON-EXPORTERS

Of the 134 respondents, 61 represented companies that were not currently exporting. The most commonly self-identified response for not exporting was a belief that a product or service could not be exported, as seen in Figure 3. However, upon further examination of those companies, many of the respondents produced a service that actually was exportable, they were just unaware of the export opportunities.

The 21 percent who responded “other”, which was the second highest selected answer, included responses such as: financial hindrances, not understanding the process flow of trade, product was still in design stage, or waiting on regulatory approval of a product to begin exporting. Lack of financing was the third most common response at 20 percent. It is worth noting that most of the responses in “other” could have fallen under the category of “lack of financing”. The next most prominent answer was “more interested in expanding within the U.S.”. Remaining responses included not having the capacity to grow outside their domestic market; not having an established overseas partner and a general belief that exporting is too risky.

What are the reasons that your company does not export? Select all that apply.		
Answer Options	Response Percent	Response Count
Product/service cannot be exported.	47.5%	29
Other	21.3%	13
Lack of financing.	19.7%	12
More interested in expanding within the U.S.	18.0%	11
Do not know where to find overseas buyers.	13.1%	8
Enough business from my local/state/regional market.	9.8%	6
Do not know what to do to export.	9.8%	6
Do not have knowledge of export payment mechanisms (e.g. letters of credit)	9.8%	6
Do not have knowledge of foreign import regulations.	8.2%	5
Do not have knowledge of overseas shipping requirements.	8.2%	5
Operations (workforce, equipment, employment) are already at capacity.	3.3%	2
Other (please specify)		11
<i>answered question</i>		61
<i>skipped question</i>		73

Figure 3

EXPORTERS

69 of the 134 respondents represented companies that were currently exporting goods, services, or both. For those companies that were already exporting, the survey examined initial challenges such as financing, product viability and foreign market selection. It also addressed existing trade barriers for a company and future growth in new markets.

When asked the main reasons that the company exported to particular international markets, the top five answer options selected all related to pre-established/existing contacts or connections in the foreign country, as illustrated in Figure 4 below.

What are the main reasons that your company exports to these countries? Select all that apply.		
Answer Options	Response Percent	Response Count
Direct sales (exports) opportunities	57.4%	27
Company or contact in foreign country selected my company	53.2%	25
Prior relationship or previous experience with companies or contacts in these countries	53.2%	25
Distributors in these countries	40.4%	19
Established partnership with foreign company in these countries	38.3%	18
Stable political/economic environment	14.9%	7
English language market	14.9%	7
Proximity to the U.S.	12.8%	6
Similar business environment to the U.S.	8.5%	4
Other (please specify)		6
<i>answered question</i>		47
<i>skipped question</i>		87

Figure 4

To better understand export output, companies were asked what percentage of total sales exports accounted for. Of the 48 participants that answered this question, 48 percent responded that exports were more than 25 percent of their total sales. At the lower end of the spectrum, yet the next highest selected response, 19 percent of respondents listed total exports between 0-5 percent. See Figure 5 below.

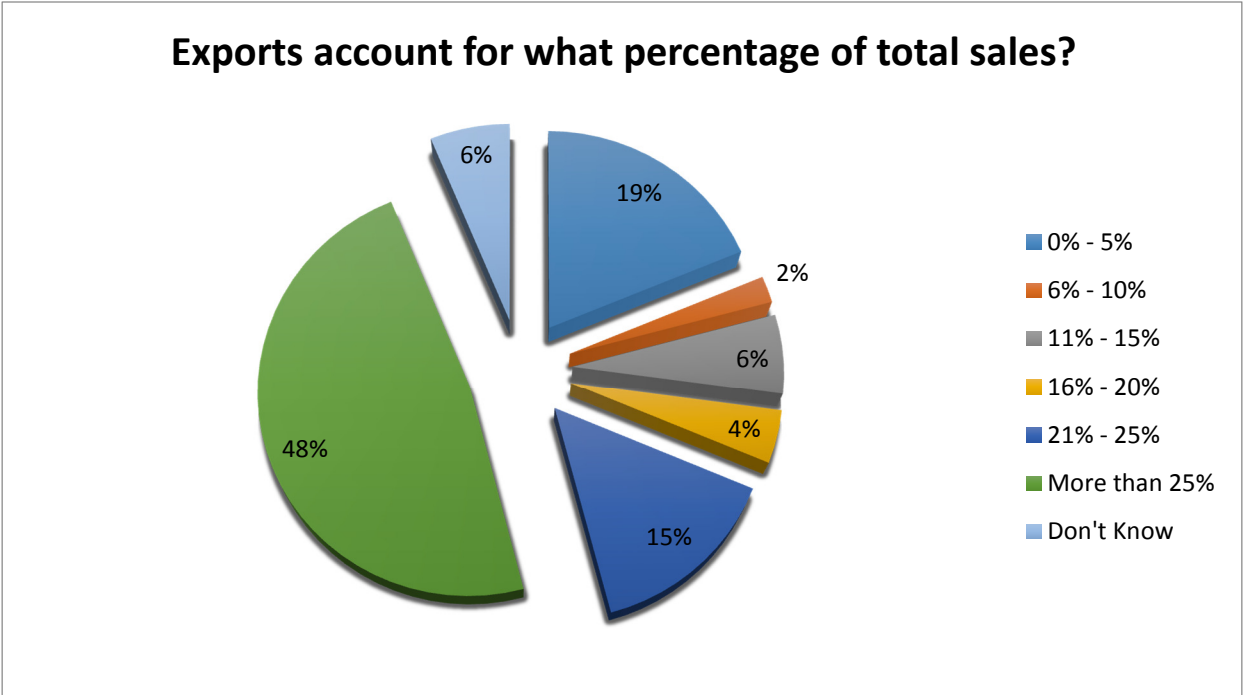


Figure 5

Logistics

47 respondents identified what types of transportation services they were utilizing for their exports (Figure 6). Sea and air were the two leading modes, ground trucking was third at 28 percent of total responses, and rail, which was utilized significantly less, received only 9 percent of total responses. Telecommunication and electronic downloading of software were the relevant responses listed under “other”.

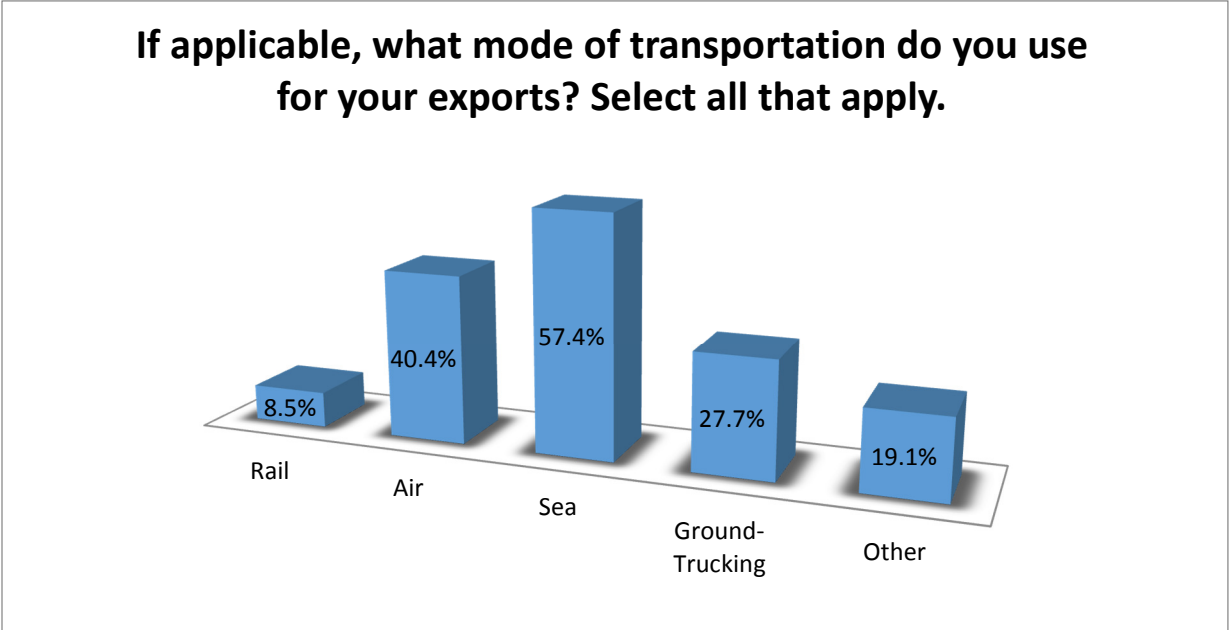


Figure 6

Export Services

There were 104 responses to the question about utilizing export assistance from government or non-profit providers. 76 percent answered that they have not utilized trade resources (Figure 7). Of the 18 percent that responded they had utilized trade assistance, all but three percent ranked the services between good or excellent.

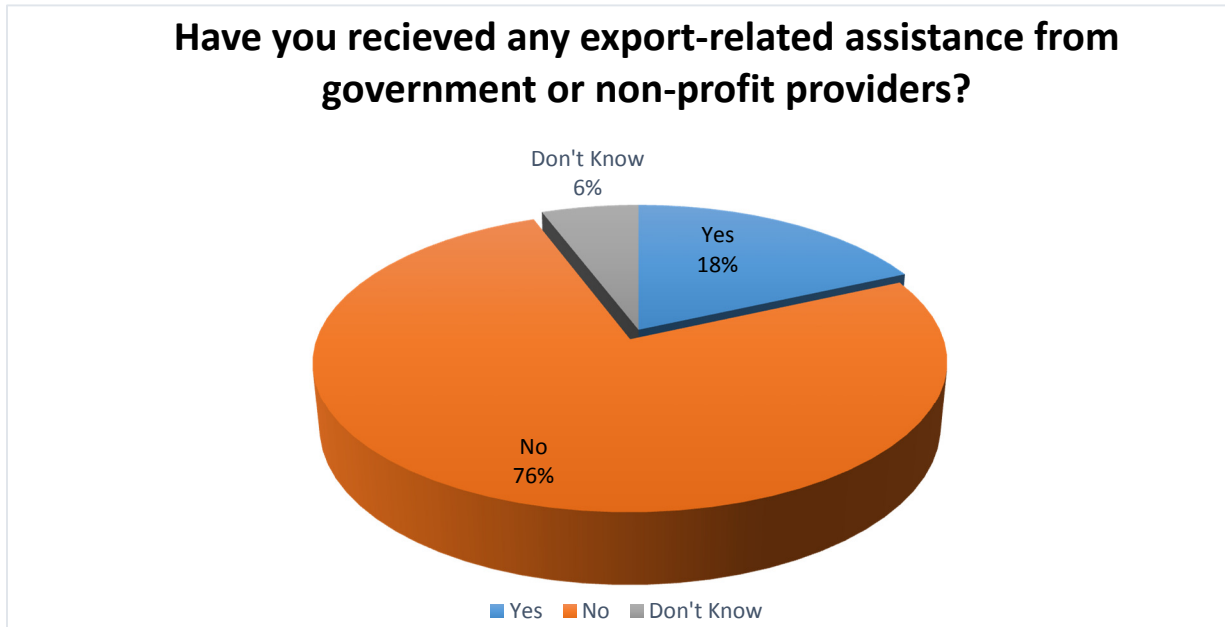


Figure 7

There were 103 responses to the question that asked whether a business received export finance support. 90 of the respondents said that they did not. The reasons given ranged from never having applied, to struggling with the process and paperwork, or not being eligible. See Figure 8.

What were the reasons your company did not receive export financing? Select all that apply.		
Answer Options	Response Percent	Response Count
Did not apply for export financing from a public/government entity.	75.6%	68
Other	14.4%	13
Could not find a lender associated with the public entity to accept my loan application.	11.1%	10
Process and paperwork were too complicated.	11.1%	10
Company had insufficient collateral.	7.8%	7
Business revenue was too low.	6.7%	6
Public entity did not have funds for export financing.	5.6%	5
Company did not qualify (was not eligible) under the stated criteria.	3.3%	3
Other (please specify)		15
<i>answered question</i>		90

Figure 8

When asked how the federal, state or local government could provide further support to companies at any stage of the export process, including start-ups, the most common responses were: holding export-related training workshops, with the majority of those workshops targeting new-to-export and SME's specifically (Figure 9). Trade shows and conferences that focus on country-to-business matchmaking, and a reduction in taxes/ government overhead were the next two most common responses. Export-related mentorship programs and networking, more export finance programs and the streamlining or reduction of export-related government paperwork and procedures were also common responses.

How could federal/state/local government help your company begin exporting, increase exports, or export to new country markets? Select all that apply.		
Answer Options	Response Percent	Response Count
Export-related training workshops targeted at new-to-export and/or small/medium business	39.7%	29
Events such as trade shows, conferences etc. focused on matching/introducing new-to-export businesses with prospective foreign business partners	37.0%	27
Reduce taxes/government overhead	37.0%	27
Export-related training workshops	35.6%	26
Export-related mentorship programs and networking opportunities for new-to-export and/or small/medium businesses	28.8%	21
More export financing programs that target small/medium businesses or new-to-export businesses	28.8%	21
Streamline/reduce export-related government paperwork and procedures	28.8%	21
More free trade deals	23.3%	17
Well-defined state or national export promotion strategy	19.2%	14
Workforce development programs	17.8%	13
High-profile export development trade missions to other countries, led by industry and/or trade associations, governments	15.1%	11
Better ports and airports	13.7%	10
Other (please specify)		9
<i>answered question</i>		73
<i>skipped question</i>		61

Figure 9

Foreign Markets

The survey asked participants to identify the top five countries to which they were currently exporting and what percentage of their total exports went to each foreign market. 41 people responded at least once, many of them responding multiple times. Most respondents did not list a percentage of exports associated with each market, therefore; the results were used only to identify which international markets were listed most frequently. The top five countries, in sequential order were Mexico, Canada, China, Japan and Australia. Figure 10 shows the frequency of which current export markets were listed.

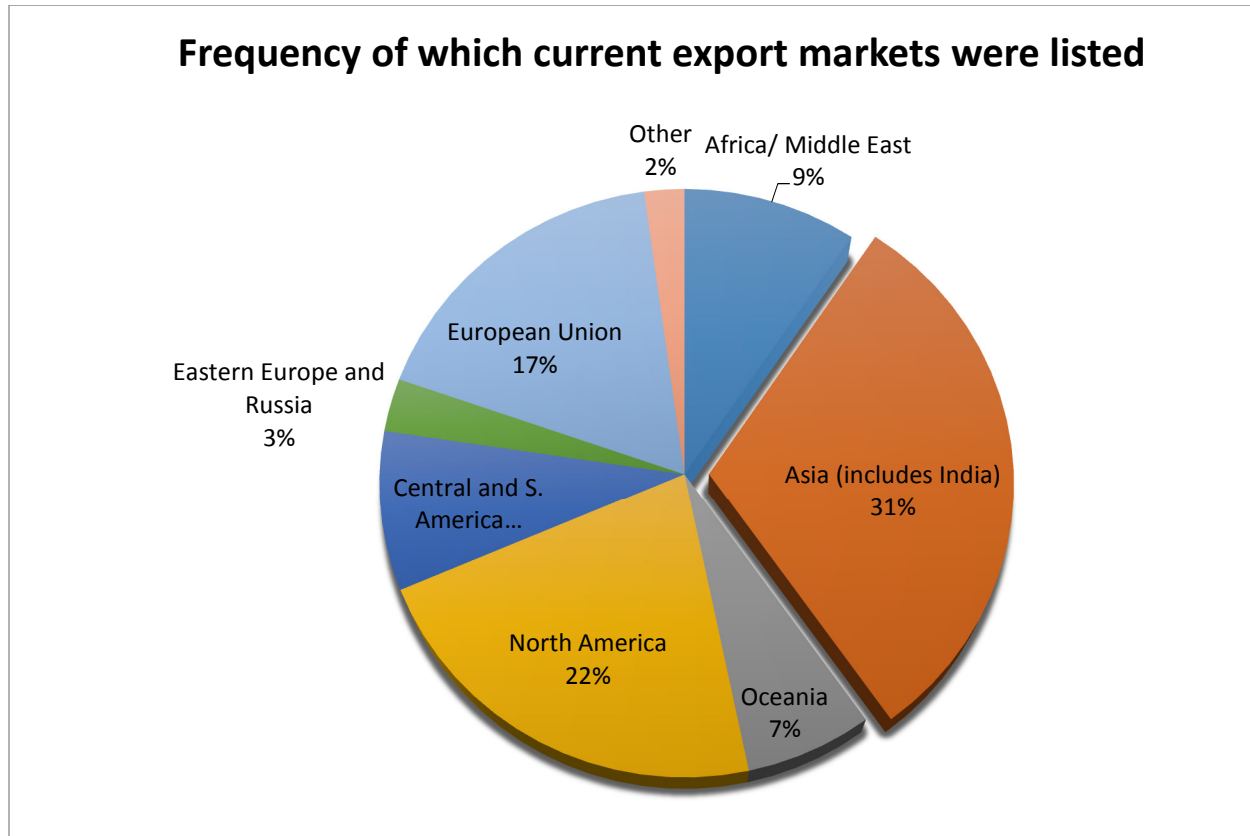


Figure 10

Looking Ahead

43 people responded to the two-part question that first asked if a business was planning on entering a new foreign market in the next two years, and secondly, to list what new countries/markets they planned on entering. 98 percent of the businesses responded that they planned to expand into a new markets in the next two years. 68 percent of respondents said they planned on entering a new export market in the next three-five years (Figure 11).

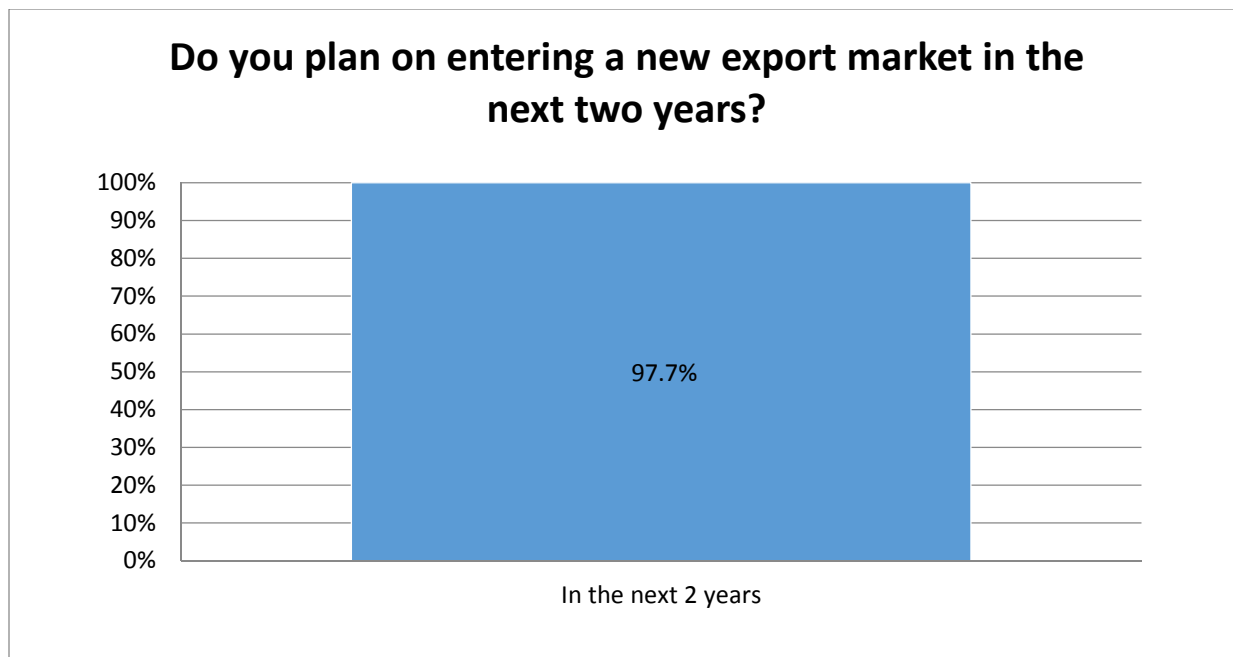


Figure 11

The word cloud below illustrates the frequency that respondents mentioned countries or foreign regions as prospective markets in the next two years..



Figure 12

SURVEY KEY FINDINGS

- Top reasons companies self-reported for not exporting:
 1. Product/ Services cannot be exported
 2. Lack of financing.
- The most common export markets for respondents were: Mexico, Canada, China, Japan and Australia.
- Businesses are underutilizing or unaware of export services available, particularly in the financial sector.
- Companies that used export assistance rated them well.
- Direct sales opportunities and prior relationships are the top two reasons exporters selected their overseas markets.
- Exporters expressed a need for more government assistance, particularly in providing workshops that focus on SME's and new-to-export businesses.
- 98 percent of export businesses reported that they plan to expand into a new market in the next two years.

LOCAL INTELLIGENCE INTERVIEWS

For a qualitative complement to the online survey, 23 one-on-one interviews were conducted over a two-month period in the spring of 2014. The export profile of the respondents were as follows: 19 respondents reported that their companies were exporting; two companies did not export; one respondent's company had exported, stopped, and was looking to get back in the international market; and one respondent initially reported he did not export but discovered through the interview process that he actually was exporting a service. The interviews expanded upon the information found in the surveys, while providing more in-depth insights into the export process.

BUSINESS DEMOGRAPHICS

The interviews lasted between 45 minutes to an hour and were conducted both in person and over the phone. Exporters were asked 12 questions, non-exporters were asked six. Respondents' businesses are located in the following counties:

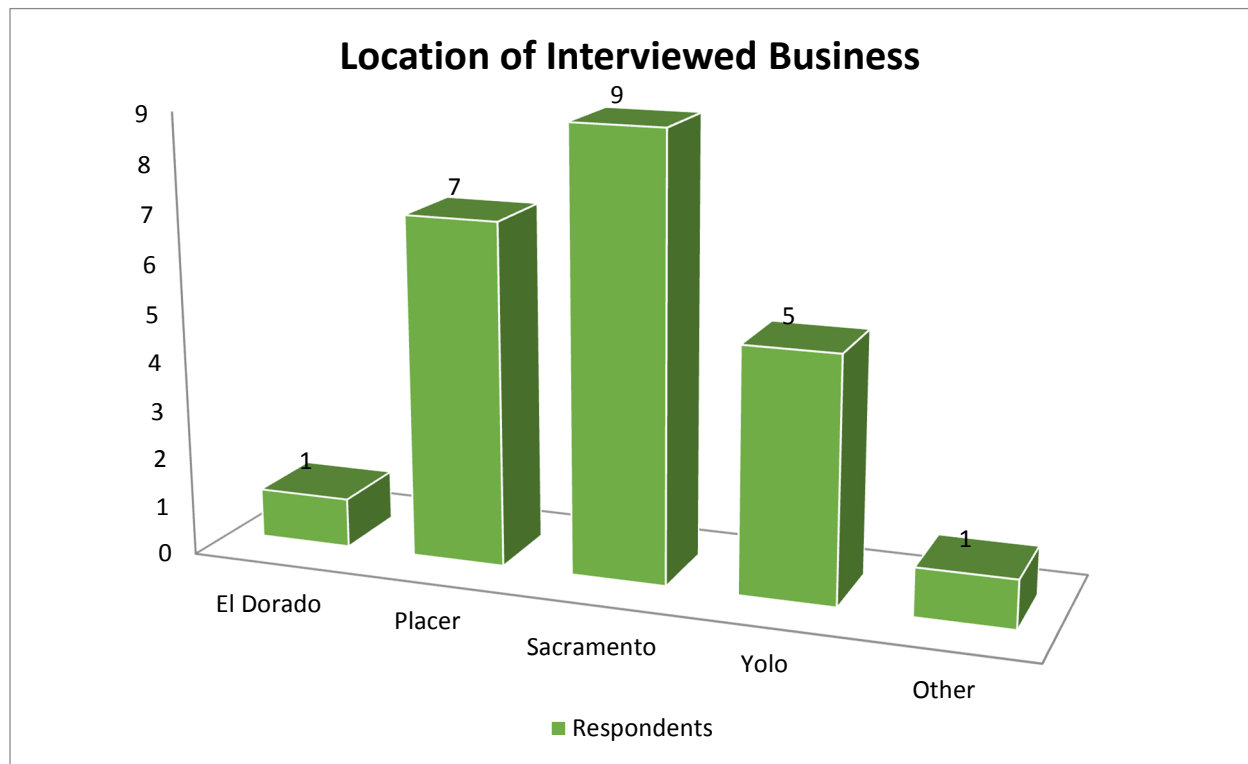


Figure 1

As seen in Figure 2, the interview respondents represented a wide range of industry sectors, from manufacturing to engineering and educational services.

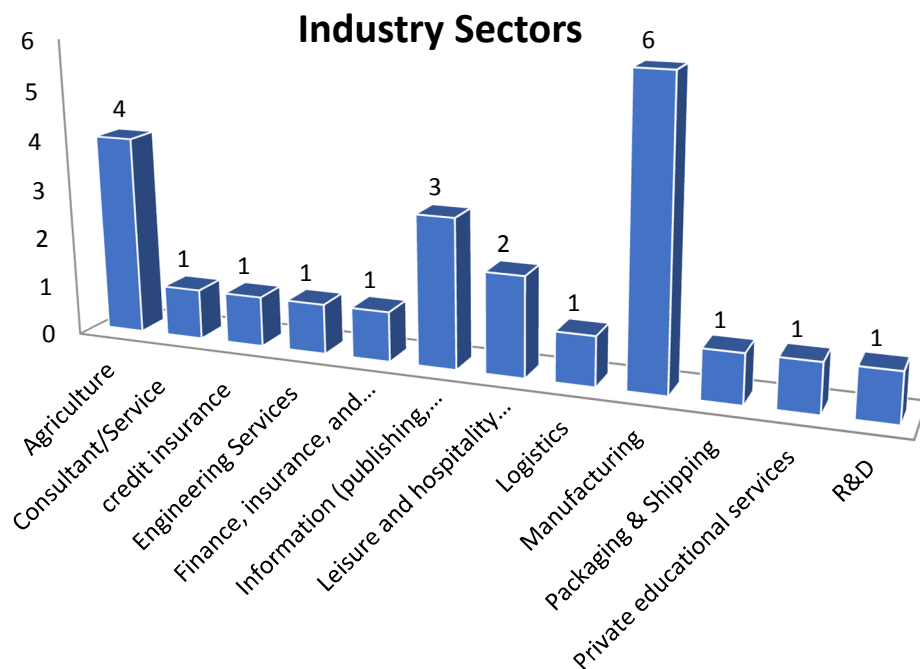


Figure 2

NON-EXPORTERS

Four of the companies interviewed reported that they were not currently exporting. The first company had exported in the past, but stopped for the last several years. The participant from that company indicated that the firm was currently looking at a contract with a buyer in Japan and would likely be exporting again within the year. That same participant reflected that exporting had been very challenging in the past, particularly in creating the right relationships to get into certain markets. Connections, language and cultural differences were just some of the obstacles mentioned.

The second company, a large agricultural importer, re-sold imported products to the United States exclusively. When asked about future export plans, the interviewee responded that the company was successful enough in its current market that management was not considering exporting. Management feared that the paperwork, product fees and regulation would be expensive. It was also mentioned that the company does not have sufficient workforce in place to support an expansion into exports.

The third company was in the final stages of approval for exporting a medical device to European markets. The medical device manufacturer indicated that the extensive product approval process in Europe was delaying exporting. Their product required extensive market research to determine where it would be most effective and how to train medical staff in the buyer's country to use the equipment as it was intended. The manufacture's fears of product misuse or product replication were a significant concern that resulted in the company starting exports in the European market, where stringent patent regulations are in place. Strong

product protection and a known medical device market and distribution systems were the main reasons this medical device manufacturer reported selecting certain countries for its product.

The last company was a printing company that did not believe they had any export-related work. Upon further inquiry, they described printing materials for an international group that came to the Region for conferences. In this example, the local company is providing a service locally but being paid in foreign currency, which is considered an export, despite the fact that the product is not leaving the U.S.

CURRENT EXPORTERS

Entering the International Market

Many of the businesses interviewed indicated that they were originally drawn into an international market not on their own initiative but as a result of being approached by a foreign buyer. After the initial international transaction, however, they realized the benefit of expanding their reach into the global market and proceeded actively seeking out international buyers, as described by a representative of PASCO scientific:

PASCO has been exporting for 25 years now, but our first international transaction took place when a foreign buyer came knocking on our door, literally, with money in hand and a demand for our product. This turned the head of PASCO Scientific's CEO and led to our first international transaction, in Columbia.

Now, our strategy is to be purposeful in the international markets we enter, finding new demand for our products and building reliable international markets. We have expanded our geographic coverage mainly due to macro econ factors like worldwide trends in science literacy and pre-university and university level education.

-Kevin Mather, VP International Business, PASCO scientific.

Stories similar to that of PASCO's were prevalent in the interviews conducted.

Challenges:

Below are examples of responses given when asked to describe the challenges of entering foreign markets, and what were the main obstacles faced.

- Concern over getting paid
- Language barriers
- Translating materials
- Cultural differences in business practice
- Documentation and regulations
- Tariffs
- The capital to get into exporting
- Insurance
- International Traffic in Arms Regulations (ITAR) is a central issue
- Importing laws
- Customs clearance

A frequently mentioned concern was working with countries that do not have strong business ethics and where bribery is common. Interviewees said their companies steered clear of these markets, even where

there was a strong demand for their product. Finance and insurance issues and general frustrations when dealing with language and cultural differences overseas were repeated throughout the interviews.

Businesses leaders like Kit Miyamoto, of Miyamoto International, reflected that:

“It is critical to understand culture, politics and the history of a target country. Having the right local partner can make a big difference in the success and longevity of your business in that country. But we can’t forget that we should also be empowering and assisting a local partner to succeed. They know their local market better, and can help us navigate those markets while also providing a business service themselves. That’s how we expand globally. Help others which in turn helps us grow”.

-Dr. H. Kit Miyamoto, S.E., President & CEO. Miyamoto International, Inc.

Conversely, when a company had an overseas office, the representative interviewed did not note as many challenges, since the company’s foreign offices handle those issues locally. Companies that export in bulk through a broker also reported fewer international challenges. Overall, the Regional business executives interviewed embraced international opportunities based largely on the perceived ease in which they could do business with a foreign partner.

Export Markets and Future Growth

There were 11 responses to the question that asked what percentage of the company’s overall sales went to exports. Five companies indicated over 50 percent, six responded under 30 percent, where three of those six responded less than five percent.

Interviewees noted a wide variety of international markets with which they currently traded. China, Europe, Canada, Japan, and Mexico were the most frequently mentioned. See Figure 3.

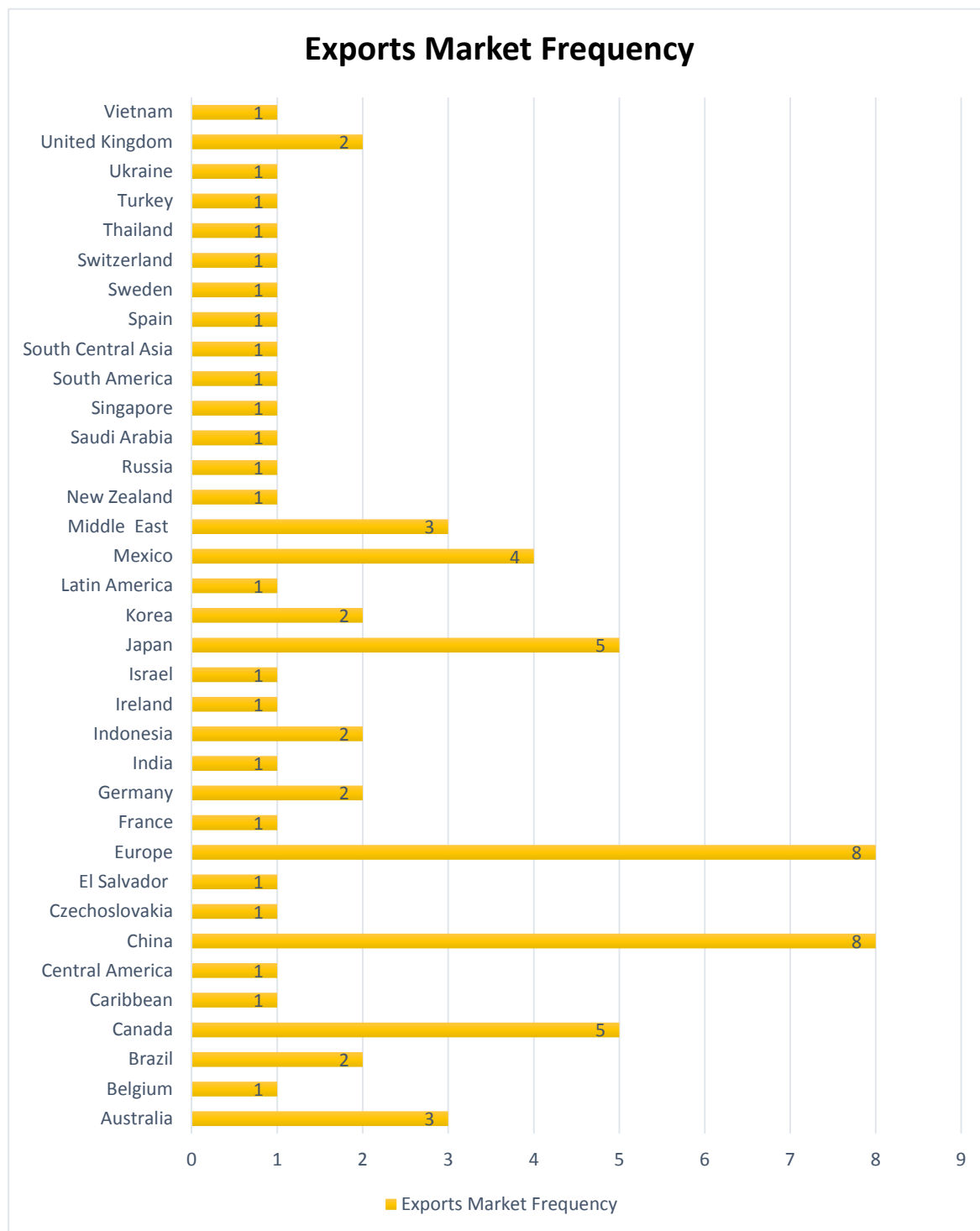


Figure 3

100 percent of the respondents said that their companies are interested in expanding into new international markets over the next two years, particularly those that were already in more than one market.

Support for Exporters

In terms of federal, state and local support, business representatives interviewed said they struggle with export finance assistance, starting with not knowing where to look. Only two companies were aware of Export-Import Bank, and one company listed the Small Business Administration as a resource they had utilized. The overall finance of exports, export receivables and the protection of overseas assets were some of the larger concerns repeatedly mentioned throughout the interviews.

In total. Eight companies listed that they were aware of programs like R&D tax credits, STEP funds, SETA, education and training grants, IC-DISC, Ex-Im Bank, Foreign Trade Zones, California Trade offices abroad (China) and other U.S grants and USEAC programs like the Gold Key Service. Most respondents expressed that California's regulations and high taxes made business operations expensive and more challenging.

Both exporters and non-exporters stated that they would like to have a stronger connection to other exporters in the community. For those companies that were not yet exporting, the interview respondents indicated that talking about the challenges, connections and resources that other existing export companies used would be of great value to them. For companies already exporting, being able to share best practices was equally important. Exporters face unique challenges that they want to be able to share and would value having access to a network of experienced exporters to lean on for advice.

Below are several comments made by businesses when asked what types of programs or support they would be most interested in receiving.

"Matchmaking opportunities. I am looking for investment and finance connections and how to find the right companies, strategic alliances are important."

"My major impediment has been a lack of knowledge in resources, especially in what is out there for funding like loans, grants, etc."

"The promotion of any educational exports events needs to be more strategic."

"Give companies a tax credit for exporting –R&D tax credits have helped a lot, but there's more that could be done at the state level. For example: Inventory for exports shouldn't be taxed."

"Networking opportunities or roundtables for exporters would be a great tool."

INTERVIEW KEY FINDINGS

- Export resources are fragmented and hard for companies to find, thus those resources are underutilized.
- Reliable overseas connections and cultural differences in business practices were the biggest challenges for exporters.
- In most cases, businesses did not even know what entities to approach outside of their local bank to help them get the capital needed to begin exporting or expand into new markets.
- Companies that are exporting see the value to their bottom line and are looking to continue expanding.
- Businesses need to be better educated about the definition and rationale for exporting.
- Companies would like more state support and incentives to help them offset the risk of international business.
- China, Western Europe, Canada, Japan and Mexico were the top export markets listed by companies.

Survey Disclaimer: Questions that were exclusive to exporters, or non-exporters, were still counted in the total answered questions under “skipped”. Therefore, each question shows a total of 134 respondents, despite some of those respondents being automatically skipped ahead to a different question. Every question required an answer but not all questions were answered with valid entries. Some questions allowed for multiple answers.

CONCLUSION

With research informed by data from the Next Economy Regional Prosperity Plan, the Brookings Institution, the International Trade Administration, and many other sources, this Market Assessment combines a quantitative data-driven analysis with the qualitative challenges captured in interviews to create a compelling case for the development of a focused export growth plan.

All three components that make up the Market Assessment help explain why the Region maintains a low export growth rate and intensity. Through the analysis of these research components, seven key findings were identified which will be used to directly inform and drive the goals, objectives and strategies for the California Capital Region - Metropolitan Export Plan.

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WORLD TRADE CENTER®
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CENTER for STRATEGIC
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