



*The Economics of Land Use*



**Final**

## Solano County Economic Diversification Study

Prepared for:  
Solano County

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## Acronyms

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ABAG.....	Association of Bay Area Governments
ACTC.....	Alameda County Transportation Commission
APA.....	American Planning Association
Bay Area.....	San Francisco Bay Area
CalTrans .....	California Department of Transportation
CEDS.....	Comprehensive Economic Development Strategy
CEQA.....	California Environmental Quality Act
County.....	County of Solano
county .....	Solano County
CPTED .....	Crime Prevention Through Environmental Design
CSER.....	Center for Strategic Economic Research
CTE.....	Career Technical Education
DoD .....	United States Department of Defense
ED .....	economic development
EDA.....	Economic Development Administration
EDC.....	Solano Economic Development Corporation
EPS .....	Economic & Planning Systems, Inc.
FBI.....	Federal Bureau of Investigation
Highway 12 .....	State Route 12
I-80 .....	Interstate 80
I-680.....	Interstate 680
IFD .....	Infrastructure Financing District
JPA .....	Joint Powers Authority
LAFCO .....	Local Agency Formation Commission
MSF.....	Moving SOLANO Forward
MSF Strategy.....	MSF Diversification Strategy
MTC .....	Metropolitan Transportation Commission
OEA.....	Office of Economic Adjustment
SACOG .....	Sacramento Area Council of Governments
SBDC .....	Small Business Development Center
SCC.....	Solano Community College
SCS.....	ABAG Sustainable Communities Strategy

## Acronyms (continued)

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SPUR.....	formerly, San Francisco Planning and Urban Research Association
STA.....	Solano Transportation Authority
State.....	State of California
STEM.....	Science, Technology, Engineering, and Mathematics
SWOT.....	Strengths, Weaknesses, Opportunities, and Threats
TOD.....	Transit-Oriented Development
Travis AFB/TAFB.....	Travis Air Force Base
UCD.....	University of California at Davis
WIB.....	Workforce Investment Board of Solano County

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## **Moving SOLANO Forward Project Team**

The County of Solano served as the Moving SOLANO Forward project administrator and contracted with Economic & Planning Systems, Inc. (EPS) to serve as the project manager. Other members of the EPS team included the Center for Strategic Economic Research (CSER) and the Solano Economic Development Corporation (EDC).

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## EXECUTIVE SUMMARY

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This September 2014 Final Report describes the background, project process, technical analysis findings, and detailed economic diversification strategy associated with Moving SOLANO Forward (MSF). MSF is a countywide strategic approach to further diversify the economic base of Solano County and allow residents and businesses to thrive and prosper. This Final Report incorporates edits derived from comments to the June 2014 Draft Report, which are provided as an addendum to this document (refer to Addendum 1 for comments on the Draft Report).

### Introduction

Solano County (county) is strategically located between two established Northern California regions: the San Francisco Bay Area (Bay Area) and Sacramento regions.<sup>1</sup> Geographically, the county is bifurcated into western and eastern regions. The western county, oriented around the cities of Vallejo and Benicia, has a major concentration of petrochemical (e.g., Valero) and related heavy industry production, labor force ties more closely aligned with the Bay Area, and a limited supply of land resources outside of Mare Island and other infill opportunities. The eastern county, extending along the Interstate-80 (I-80) corridor and represented by the cities of Fairfield, Vacaville, and Dixon, is in a more nascent stage of development, and hosts Travis Air Force Base (referred hereafter as Travis AFB or TAFB), major employers in a variety of industries (e.g., Genentech, Janssen/ALZA Corporation, Kaiser Permanente, NorthBay Healthcare, Jelly Belly Candy Company), and significant land resources. The cities of Suisun City and Rio Vista, also in the eastern county, are located along the State Route 12 (Highway 12) corridor and offer recreational amenities and primarily infill development opportunities.



Travis AFB is located in the northeast portion of the county seat (Fairfield) and is an important base of operations for military airlift and humanitarian aid throughout the world. The base handles more cargo and passenger traffic through its airport than any other military air terminal in the United States. As the county's largest employer, TAFB is a primary driver of the county economy and is estimated to have an annual economic impact of more than \$1.6 billion, with

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<sup>1</sup> In this report, Solano County and the abbreviation "county" refer to the geographic boundaries of the county and all cities contained therein. The political and administrative entity will be referred to as "County of Solano." Any reference to other counties will include the specific county name.

\$92 million spent on local contracts in 2012.<sup>2</sup> Key base expenditure activities include aircraft and vehicle maintenance; civil engineering; medical operations; and communications. Travis AFB has a workforce of 13,400 with about 60 percent (8,150) residing in the county. The presence of TAFB is the primary reason the government, as an industry category, produces the most economic output in the county.<sup>3</sup> In contrast, the government sector is the State of California's (State) third-largest sector in terms of economic output.

## The Need for Economic Diversification

The county is at a key juncture in its evolution. The county is emerging from significant impacts incurred during the Great Recession, the worst economic crisis since the Great Depression. Over the past decade, population growth has been slower than in neighboring regions, and job losses have been more acute. Despite these significant impacts, however, projections are optimistic regarding future job prospects, buoyed by the county's existing and projected labor force and development capacity, comprising both existing, vacant development and vacant land supply. As the county regains its footing after the recession, the next phase of commercial growth will be instrumental in setting the tone for future economic growth and development. In particular, the county has an opportunity to focus future economic diversification efforts within the context of creating desirable, sustainable communities that connect demographic projections, labor force needs, and developing sound land use patterns that support city-specific objectives.

Although the county's economy is strengthening following the recession, four major economic sectors currently comprise a majority of the total employment in the county (government; health care and social assistance; retail trade, accommodation, and food service; and manufacturing). Indeed, in reviewing the local economy, the county has an economic diversity index measurement well below the remainder of the Bay Area region and State as a whole. Further, the county is understandably concerned about potential, future fluctuations in defense expenditures associated with Travis AFB and the resulting impact on the local economy.



Source: <http://www.dailyrepublic.com>

<sup>2</sup> Travis Air Force Base 2012 Economic Impact Analysis. [www.travis.af.mil/shared/media/document/AFD-130425-038.pdf](http://www.travis.af.mil/shared/media/document/AFD-130425-038.pdf). Annual impacts comprise the Travis AFB, including the David Grant Medical Center.

<sup>3</sup> Output refers to the market value of goods produced or services provided and frequently is reflected as the total revenue or sales in businesses.

To strengthen industry sectors that demonstrate regional growth potential and hedge against defense spending fluctuations associated with Travis AFB, the county needed a detailed, strategic framework that recognizes past collaborative economic development efforts accomplished by the county and its seven cities (Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville and Vallejo) while identifying areas in which the county economy can continue to evolve.<sup>4</sup>

## Moving SOLANO Forward

In early 2013, the County launched an effort, dubbed Moving SOLANO Forward (MSF), to develop a countywide strategic approach to further diversify the economic base of the county and allow residents and businesses to thrive and prosper.

The MSF Economic Diversification Strategy (MSF Strategy) presented here is the culmination of technical analyses and substantial stakeholder input obtained over the last year. The MSF Strategy, based on a unifying vision and objective for future economic development in the county, lays out three overarching goals and an associated set of strategies, implementation actions, implementing entities, and anticipated timelines to undertake each action over the next 5 years (2014-2019).

To bring the MSF Strategy to fruition, the County of Solano (County) assembled a multi-disciplinary project team (MSF Team). As project administrator, the County contracted with Economic & Planning Systems, Inc. (EPS) to serve as the project manager of the MSF Team. Other members of the MSF Team included the Center for Strategic Economic Research (CSER) and the Solano Economic Development Corporation (EDC).

## Regional Engagement and Collaboration

Recognizing that an implementable economic diversification strategy can only be realized if a broad cross-section of interests has the opportunity to provide input, the MSF Team developed an organizational project structure that included a diverse set of civic and business stakeholders. These stakeholders were organized into two groups: the **MSF Partners** and the **MSF Review Committee**. This structure allowed for robust information gathering, evaluation and prioritization among stakeholders throughout the MSF development process. Further, the **MSF Partners**, who have taken ownership and overseen the process of creating the MSF Strategy, will be integral to overseeing the strategy's successful implementation.

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<sup>4</sup> Past collaborative economic development efforts include the Solano County Shared Economic Development Framework and industry cluster studies. Refer to County of Solano's Web site for more information: [www.solanocounty.com/depts/bos/working\\_to\\_create\\_jobs/economic\\_studies.asp](http://www.solanocounty.com/depts/bos/working_to_create_jobs/economic_studies.asp).

## MSF Stakeholder Roles and Responsibilities

### MSF Partners

- Developed strategic vision
- Provided oversight on process
- Built broader constituency for implementation
- Organized and managed implementation

### MSF Review Committee

- Reviewed and provided input on technical analyses
- Provided input on MSF Partner recommendations

The MSF Team conducted meetings with the MSF stakeholders, presenting opportunities for collaboration and input. In addition, the MSF Team conducted interviews with planning and economic development staff at the County and all seven incorporated cities, as well as key employers in the county to understand opportunities and challenges facing the public and private sector. The MSF Team shared key updates and solicited feedback through the project Web site: [movingsolanoforward.com](http://movingsolanoforward.com). Insights derived through this process, in addition to findings derived through technical analyses, were synthesized and used as key inputs into the MSF Strategy.

## A Unifying Vision and Objective for the County

Through discussions at MSF Stakeholder meetings, the MSF Team and stakeholders developed a unifying vision and objective to guide the MSF Strategy. The vision and objective not only represent a framework for which the MSF Strategy was conceived but also offers a call-to-action for county civic and business leaders to align themselves in working towards a common goal of diversifying the local economy.

### Vision

*The Solano County region will work collaboratively to create a diverse and robust economy focused on city-driven growth, desired industry cluster growth in targeted locations, viable agricultural uses, and strengthened recreational assets that expand economic opportunities for employers and residents.*

### Objective

*Identify and prioritize strategic public investments to induce private-sector investments to diversify and grow the county's economy by:*

- Identifying key issues and opportunities;
- Aligning interests and resources; and
- Pursuing high-priority initiatives.

## Technical Underpinnings

Using the MSF vision and objective as a foundational concept for guiding development of the detailed MSF strategy, the MSF Team also conducted key technical analyses and gathered input from MSF stakeholders and other civic and business leaders in the county. The technical analyses underpinning the MSF Strategy were prepared and disseminated as discrete memoranda throughout the project. These memoranda are summarized below and provided in the appendices of the MSF Strategy Report for reference.

- **Demographic and Economic Profile and Real Estate Analysis (Memorandum #1).**  
The demographic and economic profile presents contextual information regarding demographic and economic trends and projections and provides a synthesis of existing, vacant land supply and projected real estate demand. The memorandum provides several conclusions regarding demographic and economic characteristics of county residents, employees, and jobs. In addition, the memorandum concluded that the county's land supply is a major competitive advantage, with substantial "shovel-ready" land assets positioned in critical locations throughout the county. Further, the county has many opportunities for redevelopment and reuse of a substantial amount of vacant, available space located throughout the county. Additional findings and the detailed analyses can be found in the technical appendices of this report (**Memorandum I**).
- **Economic Development Programs and Services Evaluation (Memorandum #2).**  
The MSF Team evaluated the regional economic development (ED) ecosystem to understand the roles, outcomes, and gaps of ED entities currently operating in the county. The evaluation focused on existing regional ED programs and services relative to a typical suite of "best practice" regional ED programs and services. At its conclusion, the evaluation addressed considerations for maximizing regional ED programs and services in the county. The detailed regional ED evaluation is provided in the technical appendices of this report (**Memorandum II**).
- **Strengths, Weaknesses, Opportunities, and Threats Analysis (Memorandum #3).**  
The MSF Team conducted the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to identify internal and external characteristics pertaining to economic development in the county. The purpose of the analysis was to allow the county to gain a better understanding of current, high-priority characteristics to guide development of the MSF Strategy. The preliminary SWOT analysis was presented to MSF stakeholders during meetings conducted in February 2014 for the purpose of refining and prioritizing the universe of strengths, weaknesses, opportunities, and threats pertaining to the county. The SWOT analysis is shown in the technical appendices of this report (**Memorandum III**).
- **Viable Industries and Clusters Analysis (Memorandum #4).**  
The MSF Team conducted an analysis of viable industries and clusters for which the county should focus to assist in diversifying its economy. The analysis identified five industries that posted the strongest performance in the county for a variety of key economic factors. These industries—manufacturing; health care & social assistance; natural resources & mining; and retail trade—should be used, in part to inform ED targeting efforts. By breaking apart major industries into their narrowly defined components, specific business activities can be arranged into clusters of related activities. Ultimately, the analysis identified four viable clusters to target limited ED resources. The detailed viable industries and clusters analysis is provided in the technical appendices of this report (**Memorandum IV**).

**Solano Countywide  
Targeted Clusters**

- Energy
- Food Chain
- Medical and Life Sciences
- Advanced Materials

## Key Outcomes of the Project

In addition to the MSF Strategy, which provides the county with a strategic framework for diversifying its economy over the next 5 years (2014-2019) and is described further in the following sections of the report, the MSF project has produced a number of important tools that are integral components of the implementation phase of the strategy.

- **Continued Regional Collaboration.** The county, known for collaborating on other county issues such as regional transportation and other infrastructure improvements, worked together to review and provide input on the technical analyses and economic diversification strategy components associated with the MSF project. The collaborative effort, primarily comprised of MSF Partners and the MSF Review Committee, was inclusive of myriad civic and business leaders in the county, including: elected officials; economic development and planning staff at each of the county's jurisdictions; TAFB representatives; non-profit representatives and other county service providers; and key private-sector industry representatives. Ultimately, MSF Partners and the MSF Review Committee were called upon to reach consensus on strategy components thereby strengthening working relationships, which will be integral for moving forward with implementation.
- **Detailed Database and Maps of Vacant Land Supply in County.** As part of Memorandum #1 (Appendix C), the MSF Team compiled data from jurisdictions related to vacant land zoned for commercial office and industrial space located throughout the county. The data was organized into a database categorized by three tiers of development potential ranging from immediate development potential to longer-term development potential based on the extent of infrastructure improvements on and surrounding each parcel. In addition, Memorandum #1 includes maps showing the location of each of these sites. Both the database and maps are essential tools to assisting the county prepare for future expansions and relocations of existing businesses, as well as attraction of new businesses, especially as it relates to supporting the growth of cluster-focused businesses. The MSF Strategy utilizes these tools to achieve the overarching vision and objective, as described further in the following sections of this report.
- **Consolidated Listing of Business and Industrial Parks.** Larger business and industrial sites are a key part of the county's ability to attract and retain large firms in a range of development from manufacturing to research and development (R&D) in the targeted clusters. These businesses can help anchor the region's economy and provide existing local companies with markets and services that drive employment growth. Vacant land within existing business and industrial parks and other large-scale development opportunities in the county are included in the vacant land supply database and maps that are described above. In addition, Memorandum #1 provides a summary of each of these business and industrial parks and other large scale development opportunities, including each park/opportunity area's location, vacant acreage, the extent of infrastructure improvements to serve the vacant acreage, and existing mix of tenants. This information can be used to help focus economic development efforts related to the retention, expansion, and attraction of cluster-focused businesses in the county. In addition, this information will assist the county in evaluating the feasibility of retrofitting existing business and industrial parks with key amenities to improve the capture of desired tenants.

- **Prioritized Listing of County Strengths, Weaknesses, Opportunities, and Threats.** One of the collaborative exercises conducted by MSF stakeholders included building consensus around county characteristics related to economic development that should be prioritized. In particular, stakeholders identified top strengths that should be promoted, weaknesses that should be addressed, opportunities for which the county should prepare, and threats the county should mitigate, to the extent possible. These priority characteristics helped to shape the MSF Strategy and will also help in other efforts, such as formulating marketing and branding strategies for the county.
- **Identification of Viable Clusters.** The viable clusters analysis reinforced and expanded the definition of clusters in which the county should focus to boost competitiveness, enhance economic vitality, and diversify the local economy. Several years ago, the County, in collaboration with the Solano EDC, identified three clusters to focus economic development activities. In the MSF Team’s analysis, four viable clusters were identified—Energy; Food Chain; Medical & Life Sciences; and Advanced Materials. The first three confirmed the County and Solano EDC’s previous findings although the definition of each cluster was modified to include additional economic activities. The fourth cluster (Advanced Materials) is a new cluster and includes a wide array of high-tech engineered materials, components, and systems, as well as the commodities, products, processes, and instruments to make and monitor the materials. Focusing economic development efforts on these clusters will support the potential for increased job and wealth creation in the county, and will strengthen the local economy as a location for these distinct economic activities.

## Moving SOLANO Forward Goals and Strategies

Three distinct goals emerged from the research and stakeholder input obtained over the duration of the project. First and foremost, MSF Stakeholders wished to promote one of the county’s greatest assets: its relatively low cost of land and substantial “shovel-ready” land assets in addition to affordable lease rates and a large quantity of available, vacant commercial office and industrial space. Second, the county recognized the need to enhance economic development programs and services to compete more effectively for new business locations and expansions as well as retain existing businesses. Finally, the county will need to confront and remediate some of its documented socio-economic challenges and work to improve its image as a high quality-of-life locale to assist in attracting both residents and businesses to the county. All of these goals fit within the unifying vision and objective established by MSF Stakeholders and will work in tandem to facilitate greater economic diversity.

The MSF Strategy, based on the unifying vision and objective for future economic development in the county, lays out these three goals and an associated set of strategies, implementation actions, implementing entities, and anticipated timelines to undertake each action over the next 5 years (2014-2019). A summary-level overview of the MSF Strategy, including each goal and supporting implementation actions, implementing entities, and a proposed 5-year timeline is provided in **Table ES-1**. The detailed MSF Strategy is provided in **Chapter 2** of the MSF Strategy Report and includes details regarding specific implementation actions.

## MSF Goals and Implementation Actions

### Goal 1: Enhance Countywide Development Capacity

- Strategy 1.1: Re-envision the form and function of the Interstate-80 (I-80) corridor and other major transportation corridors in the county.
- Strategy 1.2: More effectively market shovel-ready (first-tier) sites and viable, vacant buildings to cluster-focused users.
- Strategy 1.3: Prepare second- and third-tier sites to accommodate cluster-focused and other industrial development land needs.
- Strategy 1.4: Obtain funding sources and financing tools to fund infrastructure (transportation, utilities, broadband) to prepare existing, vacant buildings and land for development opportunities.
- Strategy 1.5: Coordinate with developers and landowners to create state-of-the-art business parks and other appropriate sites with key amenities.

### Goal 2: Strengthen Economic Development and Workforce Development Programs and Services

- Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.
- Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.
- Strategy 2.3: Develop a messaging strategy for economic development purposes.

### Goal 3: Improve Quality of Life for County Residents and Businesses

- Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.
- Strategy 3.2: Improve countywide crime rates and sense of public safety.
- Strategy 3.3: Encourage and expand recreational, cultural, and artistic amenities that celebrate the county and attract visitors from in and outside the county.
- Strategy 3.4: Develop sites in the county to create a unique sense of place and promote the county as a desirable place to live and work.

## Next Steps

While some implementation actions are ready to be executed, others require additional financial or human resources. The MSF Strategy will require the leadership of the **MSF Partners** and other civic and business leaders in the county, as well as the resources of the public and private sectors to be successfully implemented over the next 5 years. Specifically, it is anticipated that members of the MSF Partners stakeholder group will seek formal adoption of the MSF Strategy by each incorporated city in the county to assist in funding and implementing the action items contained herein.

The following priority implementation actions are identified to be implemented in the first year.

### Goal 1 Priority Implementation Actions

- Conduct a **visioning study** that identifies potential improvements that would enhance the corridor's urban form as an initial step in re-envisioning the form and function of the I-80 corridor (Implementation Action 1.1a).
- Determine **specific real estate and labor needs associated with the range of users** in each targeted cluster to more effectively market shovel-ready (Tier 1) sites to cluster-focused users (Implementation Action 1.2a).
- Identify **best-positioned Tier 2 and Tier 3 sites for strategic public investment** in infrastructure improvements to prepare sites for cluster-focused and other industrial development land needs (Implementation Action 1.3a).
- Explore and **identify Federal, State, and regional financing sources** and conduct focused evaluation of each mechanism relative to level and type of funding need to fund regional infrastructure to prepare land for development opportunities (Implementation Action 1.4a).

### Goal 2 Priority Implementation Actions

- Focus on **regional business retention and expansion, as well as business attraction and marketing efforts** by preparing and executing a countywide, comprehensive five-year organizational strategic plan, defining resource requirements and developing a value-based fundraising effort, and targeting viable clusters and industries in economic development efforts (Implementation Actions 2.1a, 2.1b, and 2.1c).
- Focus on **aligning workforce skills and the skill set demand of cluster-related employers** in the county by forming private-sector industry and cluster coalitions to provide input on workforce demand and creating a standing workforce engagement team consisting of education and training providers and other workforce development entities (Implementation Actions 2.2a and 2.2b)
- Develop a **messaging strategy for economic development purposes** by developing an external brand, integrating contemporary marketing tools and tactics with economic development efforts, and building a structure to track the outcomes of the messaging strategy (Implementation Actions 2.3a, 2.3b, and 2.3d).

### Goal 3 Priority Implementation Actions

- Strengthen K-12 schools and linkages to higher education in the county by establishing **formal partnerships between local businesses, non-profits, and community organizations with schools** throughout the county and increasing opportunities for arts, language, music, Science, Technology, Engineering, and Mathematics (STEM), and Career Technical Education (CTE) related to identified county clusters (Implementation Actions 3.1a and 3.1c).
- Form a **countywide crime rate improvement and prevention task force** to improve countywide crime rates and sense of public safety (Implementation Action 3.2a).

- Encourage the **development of a wide variety of housing types** by ensuring the Housing Elements of each city accommodates an appropriate mix of different housing types, directing public funding towards acquiring, assembling, and preparing specific sites to accommodate desired residential development, collecting an inventory of funding sources (in conjunction with Implementation Action 1.4a), and creating residential development incentive programs that provide incentives to encourage desired residential development (Implementation Actions 3.5a, 3.5b, 3.5c, and 3.5d).

Refer to **Chapter 2** of the MSF Strategy Report for more details related to these initial implementation actions and all remaining implementation actions proposed over the next five years (2014-2019).

## Goal 1: Enhance Countywide Development Capacity

Strategy/ Implementation Action	Implementing Entities		5-Year Timeline [1]				
	Lead Agency	Partners	1	2	3	4	5
<b>► Strategy 1.1: Re-envision the form and function of the Interstate-80 (I-80) corridor and other major transportation corridors in the county.</b>							
1.1a Conduct visioning study that identifies potential improvements that would enhance the urban form of the county's major transportation corridors.	County	Cities; STA; School Districts; Universities; Colleges; Brokerage Community; Solano EDC	X	x			
1.1b Consider strategic catalyst locations along the I-80 corridor and other major transportation corridors for current and potential new projects of countywide significance and initiate "fatal flaw" level real estate feasibility analyses.	County	Cities; STA; School Districts; Universities; Colleges; Brokerage Community; Solano EDC			X	x	
1.1c Maximize economic performance of frontage uses.	Planning Directors Group	Cities; County; Brokerage Community				X	x
<b>► Strategy 1.2: More effectively market shovel-ready (first-tier) sites and viable, vacant buildings to cluster-focused users.</b>							
1.2a Determine specific real estate and labor needs associated with the range of users in each targeted cluster.	Solano EDC Economic Development Task Force	Private Sector; Solano EDC	X	x	x		
1.2b Cross-reference real estate and labor needs with first-tier land database and vacant land inventory to pinpoint best prospects for locations and related policy/investment actions.	City Managers Group	Solano EDC; STA; Planning Directors Group; Brokerage Community; Private Sector		X	x	x	x
<b>► Strategy 1.3: Prepare second- and third-tier sites to accommodate cluster-focused and other industrial development land needs.</b>							
1.3a Identify best-positioned Tier 2 and 3 sites for strategic public investment in infrastructure improvements.	City Managers Group	Solano EDC; STA; Planning Directors Group; Brokerage Community; Private Sector	X	x			
1.3b Conduct outreach to land owners, brokers, and developers regarding major market opportunities.	City Managers Group	Landowners; Brokerage Community; Real Estate Developers		X	x		
1.3c Develop Capital Improvement Program for leading Tier 2 and 3 sites.	City Managers Group	Landowners; Brokerage Community; Real Estate Developers			X	x	
1.3d Convene city leadership throughout the county to structure a uniform approach to providing "fast-track" approvals for high priority sites.	City Managers Group	Planning Directors Group; Utilities; Solano EDC		X	x	x	
<b>► Strategy 1.4: Obtain funding sources and financing tools to fund infrastructure (transportation, utilities, broadband) to prepare existing, vacant buildings and land for development opportunities.</b>							
1.4a Explore and identify Federal, State, and regional financing sources and conduct focused evaluation of each mechanism relative to level and type of funding need.	City Managers Group	Public Works staff; Solano EDC	X	x	x	x	x
1.4b Evaluate strategic allocation of pooled jurisdictional revenues.	City Managers Group	Solano EDC		X	x	x	x
<b>► Strategy 1.5: Coordinate with developers and landowners to create state-of-the-art business parks and other appropriate sites with key amenities.</b>							
1.5a Identify existing business parks and other sites that can be retrofitted as "innovation parks."	Solano EDC Economic Development Task Force	City Managers Group; Private sector; Solano EDC		X			
1.5b Engage in property owner/developer education and outreach to establish interest in a collaborative approach in moving forward with retrofits.	Solano EDC Economic Development Task Force	City Managers Group; Private sector; Solano EDC			X	x	
1.5c Evaluate feasibility for converting or improving selected properties in the county, dependent on property owner/developer interest.	Solano EDC Economic Development Task Force	City Managers Group; Private sector; Solano EDC			X	x	x

## Goal 2: Strengthen Regional Economic Development and Workforce Development Programs and Services

Strategy/ Implementation Action	Implementing Entities		5-Year Timeline [1]				
	Lead Agency	Partners	1	2	3	4	5
<b>► Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.</b>							
2.1a Prepare and execute a countywide, comprehensive five-year organizational strategic plan.	Solano EDC	EDC stakeholders [2]	X	x	x	x	x
2.1b Define resource requirements and develop a value-based fundraising effort.	Solano EDC	EDC stakeholders [2]	X				
2.1c Target viable clusters and industries in all economic development efforts.	Solano EDC	EDC stakeholders [2]	X	x	x	x	x
2.1d Integrate a formal look-back review process at the end of the five-year mark.	Solano EDC	EDC stakeholders [2]		x	x	x	X
<b>► Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.</b>							
2.2a Form private sector-weighted industry and cluster coalitions to provide input on workforce demand.	Solano EDC	EDC stakeholders [2]	X	x	x	x	x
2.2b Create a standing workforce engagement team consisting of education and training providers and other workforce development entities.	Solano EDC	EDC stakeholders [2]	X	x	x	x	x
2.2c Develop a system to provide information on employment opportunities and career pathways.	Solano EDC	EDC stakeholders [2]		X	x	x	x
<b>► Strategy 2.3: Develop a messaging strategy for economic development purposes.</b>							
2.3a Develop an external brand based on the business-oriented messaging and geographic orientation.	Solano EDC	EDC stakeholders [2]	X				
2.3b Integrate contemporary marketing tools and tactics within economic development efforts.	Solano EDC	EDC stakeholders [2]	X	x	x	x	x
2.3c Execute distinct audience-specific marketing campaigns (in addition to efforts targeting viable industries and clusters in Action 2.1c).	Solano EDC	EDC stakeholders [2]		X	x	x	x
2.3d Build a structure to track the outcomes of the messaging strategy.	Solano EDC	EDC stakeholders [2]	X	x	x	X	x

### Goal 3: Improve Quality of Life for County Residents and Businesses

Strategy/ Implementation Action	Implementing Entities		5-Year Timeline [1]				
	Lead Agency	Partners	1	2	3	4	5
<b>► Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.</b>							
3.1a Connect public and private schools and communities by linking local businesses, non-profits, and community organizations with schools through formal partnerships.	Solano County Superintendents Group	Cities; County; Universities; Colleges; Chambers of Commerce; Private Sector; WIB; 4Cs	<b>X</b>	x	x	x	x
3.1b Invest in technological infrastructure within schools.	Solano County Superintendents Group	Cities; County; Universities; Colleges		<b>X</b>	x	x	x
3.1c Increase opportunities for arts, language, music, Science, Technology, Engineering, and Mathematics (STEM), and Career Technical Education (CTE), and preparation for employment opportunities in identified county clusters.	Solano County Superintendents Group	Cities; County; Universities; Colleges; WIB	<b>X</b>	x	x	x	x
3.1d Explore supplemental educational programs that support improved student achievement.	Solano County Superintendents Group	Cities; County; Universities; Colleges; WIB		<b>X</b>	x	x	x
<b>► Strategy 3.2: Improve countywide crime rates and sense of public safety.</b>							
3.2a Form a countywide crime rate improvement and prevention task force.	Police Chiefs Association	Judges; Community Corrections Partnership; City Managers Group; Planning Directors Group; STA; 4Cs	<b>X</b>	x	x	x	x
3.2b Identify land use planning strategies that help improve countywide crime rates and sense of public safety.	Police Chiefs Association	Judges; Community Corrections Partnership; City Managers Group; Planning Directors Group; STA; 4Cs			<b>X</b>	x	x
<b>► Strategy 3.3: Encourage and expand recreational, cultural, and artistic amenities that celebrate the county and attract visitors from in and outside the county.</b>							
3.3a Prepare a countywide tourism master plan.	Solano EDC	Convention & Tourism Bureaus; All BIDs; ED Staff; Chambers of Commerce		<b>X</b>	x		
3.3b Establish countywide benchmarks for tracking expansion of recreational, cultural, and artistic amenities.	Solano EDC	Convention & Tourism Bureaus; All BIDs; ED Staff; Chambers of Commerce		<b>X</b>	x	x	x
<b>► Strategy 3.4: Develop sites in the county to create a unique sense of place and promote the county as a desirable place to live and work.</b>							
3.4a Prepare a downtown strategic plan for each of the county's jurisdictions.	Planning Directors Group	NA			<b>X</b>	x	x
3.4b Identify other infill sites within cities (vacant land or buildings) outside of downtown strategic plan boundary, as appropriate, that could be used as an opportunity to create a unique sense of place.	Planning Directors Group	NA			<b>X</b>	x	x
<b>► Strategy 3.5: Encourage the development of a wide variety of housing types.</b>							
3.5a Ensure the Housing Element of each city's General Plan accommodates an appropriate mix of different housing types in locations throughout each city (downtowns, near employment centers, close to transit).	Planning Directors Group	NA		x	x	x	x
3.5b Direct public funding towards acquiring, assembling, and preparing specific sites to accommodate desired residential development.	City Managers Group	Planning Directors Group	<b>X</b>	x	x	x	x
3.5c Prepare inventory of Federal, State, and regional funding sources to assist in constructing desired residential development (in conjunction with Action 1.4a).	City Managers Group	Public Works staff; Solano EDC	<b>X</b>	x	x	x	x
3.5d Create some type of residential development incentive program that provides incentives to encourage desired residential development.	City Managers Group	Planning Directors Group	<b>X</b>	x	x	x	x

Source: Moving SOLANO Forward Stakeholders (Partners and Review Committee); Moving SOLANO Forward Project Team.

[1] The bolded capital "X" denotes the primary year of implementation, while the non-bolded, lowercase "x" denotes ongoing years of implementation.

[2] EDC Stakeholders include: Solano cities; Solano County; Solano Transportation Authority; Private Sector; Chambers of Commerce; Educational Institutions; Workforce Investment Board; etc.

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MOVING SOLANO FORWARD  
Background and Key Findings

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## BACKGROUND AND KEY FINDINGS

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Through a grant from the Office of Economic Adjustment (OEA), a field organization of the United States Department of Defense (DoD), the County of Solano (County) retained the consulting team comprising Economic & Planning Systems, Inc. (EPS), the Center for Strategic Economic Research (CSER), and the Solano Economic Development Corporation (EDC) to prepare an economic diversification study of Solano County (county). The Final Report and appendices that follow describe the approach, key findings from technical analyses and input obtained from civic and business leaders in the county, and ultimate development of an economic diversification strategy known as the Moving SOLANO Forward (MSF) Economic Diversification Strategy (MSF Strategy). This Final Report incorporates edits derived from comments to the June 2014 Draft Report, which are provided as an addendum to this document (refer to Addendum 1 for comments on the Draft Report).

### Introduction

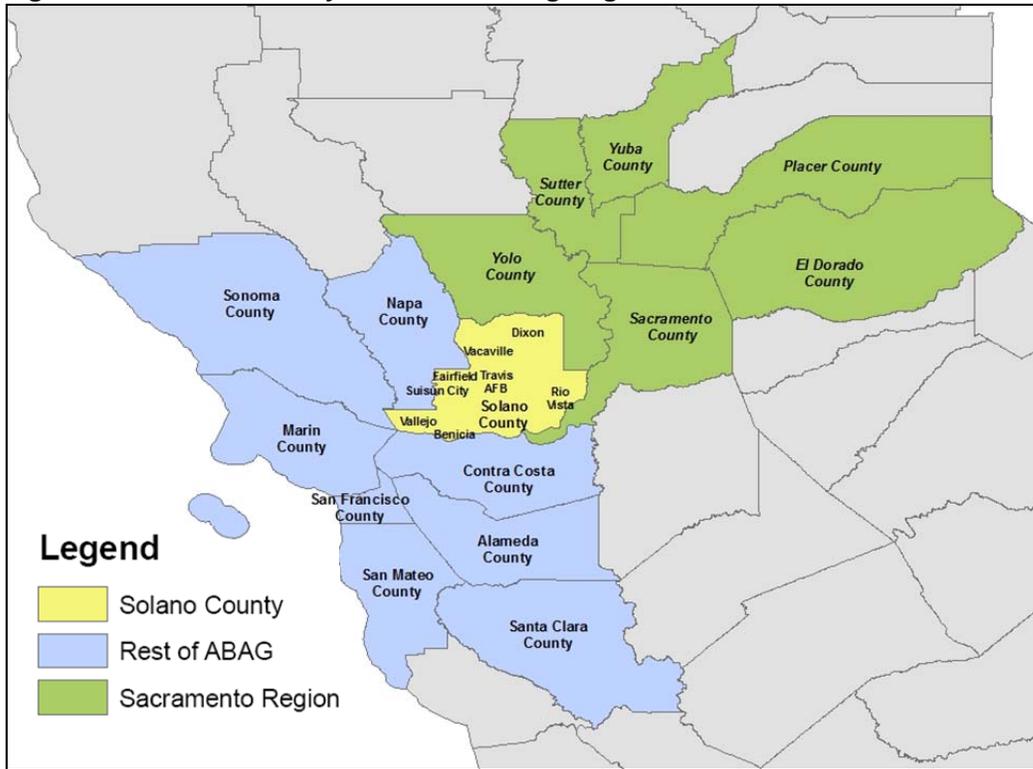
The county is strategically located between two established Northern California regions: the San Francisco Bay Area (Bay Area) and Sacramento Regions (**Figure 1-1**).

Geographically, the county is bifurcated into western and eastern regions. The western county, oriented around the cities of Vallejo and Benicia, has a major concentration of petrochemical (e.g., Valero) and related heavy industry production, labor force ties more closely aligned with the Bay Area, and a limited supply of land resources outside of Mare Island and other infill opportunities. The eastern county, extending along the Interstate-80 (I-80) corridor and represented by the cities of Fairfield, Vacaville, and Dixon, is in a more nascent stage of development, and hosts

Travis Air Force Base (referred hereafter as Travis AFB or TAFB), major employers in a variety of industries (e.g., Genentech, Janssen/ALZA Corporation, Kaiser Permanente, NorthBay Healthcare, Jelly Belly Candy Company), and significant land resources. The cities of Suisun City and Rio Vista, also in the eastern county, are located along the State Route 12 (Highway 12) corridor and offer recreational amenities and primarily infill development opportunities.



Figure 1-1. Solano County and Surrounding Regions



Source: Center for Strategic Economic Research, October 2013

Travis AFB is located in the northeast portion of the county seat (Fairfield) and is an important base of operations for military airlift and humanitarian aid throughout the world. The base handles more cargo and passenger traffic through its airport than any other military air terminal in the United States. As the county's largest employer, TAFB is a primary driver of the county economy and is estimated to have an annual economic impact of more than \$1.6 billion, with \$92 million spent on local contracts in 2012.<sup>5</sup> Key base expenditure activities include aircraft and vehicle maintenance; civil engineering; medical operations; and communications. Travis AFB has a workforce of 13,400 with about 60 percent (8,150) residing in the county. The presence of TAFB is the primary reason the government, as an industry category, produces the most economic output in the county.<sup>6</sup> In contrast, the government sector is the State of California's (State) third-largest sector in terms of economic output.



## The Need for Economic Diversification

The county is at a key juncture in its evolution. The county is emerging from significant impacts incurred during the Great Recession, the worst economic crisis since the Great Depression. Over the past decade, population growth has been slower than in neighboring regions, and job losses have been more acute. Despite these significant impacts, however, projections are optimistic regarding future job prospects, buoyed by the county's existing and projected labor force and development capacity, comprising both existing, vacant development and vacant land supply. As the county regains its footing after the recession, the next phase of commercial growth will be instrumental in setting the tone for future economic growth and development. . In particular, the county has an opportunity to focus future economic diversification efforts within the context of creating desirable, sustainable communities that connect demographic projections, labor force needs, and developing sound land use patterns that support city-specific objectives.

Although the county's economy is strengthening following the recession, four major economic sectors currently comprise a majority of the total employment in the county (government; health care and social assistance; retail trade, accommodation, and food service; and manufacturing). Indeed, in reviewing the local economy, the county has an economic diversity index

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<sup>5</sup> Travis Air Force Base 2012 Economic Impact Analysis. [www.travis.af.mil/shared/media/document/AFD-130425-038.pdf](http://www.travis.af.mil/shared/media/document/AFD-130425-038.pdf). Annual impacts comprise the Travis AFB, including the David Grant Medical Center.

<sup>6</sup> Output refers to the market value of goods produced or services provided and is frequently reflected as the total revenue or sales in businesses.

measurement well below the remainder of the Bay Area region and State as a whole. Further, the county is understandably concerned about potential, future fluctuations in defense expenditures associated with Travis AFB and the resulting impact on the local economy.

To strengthen industry sectors that demonstrate regional growth potential and hedge against defense spending fluctuations associated with Travis AFB, the county needed a detailed, strategic framework that recognizes past collaborative economic development efforts accomplished by the county and its seven cities (Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville and Vallejo) while identifying areas in which the county economy can continue to evolve.<sup>7</sup>

## Project Approach

In early 2013, the County launched an effort, dubbed MSF, to develop a countywide strategic approach to further diversify the economic base of the county and allow residents and businesses to thrive and prosper.

To bring the MSF project to fruition, the County assembled a multidisciplinary project team. As project administrator, the County contracted with EPS to serve as the project manager of the MSF Team. Other members of the MSF Team included CSER and the Solano EDC.

The overarching approach to developing the MSF Strategy is the seamless integration of technical analyses and input from civic and business stakeholders in the county. The following sections detail the components of the project approach. **Figure 1-2** provides an overview of the project schedule, including meetings with MSF Stakeholder and technical analyses that informed the development of the MSF Strategy.

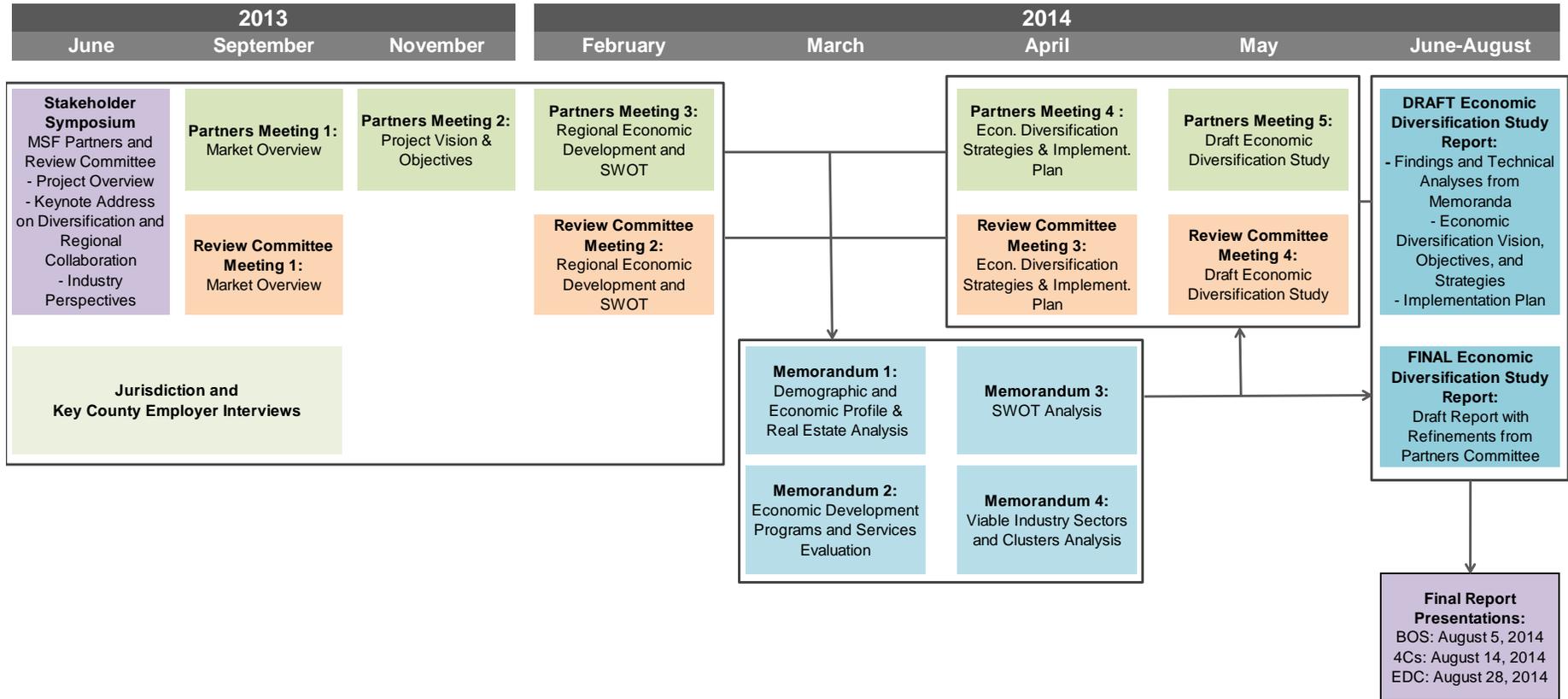
## Public Engagement Strategy

Recognizing that an implementable MSF Strategy can only be realized if a broad cross-section of interests has the opportunity to provide input, the MSF Team developed an organizational structure that included a diverse set of civic and business stakeholders. These stakeholders were organized into two groups: the **MSF Partners** and the **MSF Review Committee**. This structure allowed for robust information gathering, evaluation and prioritization among stakeholders throughout the MSF development process. Further, the **MSF Partners**, who have taken ownership and overseen the process of creating the MSF Strategy, will be integral to overseeing the strategy's successful implementation.

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<sup>7</sup> Past collaborative economic development efforts include the Solano County Shared Economic Development Framework and industry cluster studies. Refer to the County's Web site for more information: [www.solanocounty.com/depts/bos/working\\_to\\_create\\_jobs/economic\\_studies.asp](http://www.solanocounty.com/depts/bos/working_to_create_jobs/economic_studies.asp).

Figure 1-2. Moving SOLANO Forward Project Schedule



## MSF Partners

The MSF Partners are the owners of the final MSF Strategy and have overseen the process, assisted the MSF Team in developing a unifying vision and objective, provided valuable input on MSF Strategy goals, priority strategies, and implementing entities. The MSF Partners have ensured the MSF Strategy reflects an appropriate and applicable economic strategic approach. In addition, the MSF Partners will be integral to overseeing the strategy's successful implementation. MSF Partners included representation from each jurisdiction as well as other key community leaders who will be integral with MSF Strategy implementation.

## MSF Review Committee

The MSF Review Committee consisted of a diverse representation of technical, industry, and policy experts who engaged in a series of collaborative facilitated dialogues to inform the MSF Strategy. The Review Committee provided input on the draft MSF Strategy technical analyses, including identifying potential opportunities, issues and questions.

## MSF Stakeholder Symposium

The MSF Team commenced engagement with MSF Stakeholders in a symposium held in June 2013. The symposium featured keynote speaker, Egon Terplan, regional planning director for SPUR (formerly known as San Francisco Planning and Urban Research Association). In addition, the symposium hosted a panel of industry leaders in the county to discuss advantages and challenges associated with operating a business in the county. Key themes of the symposium included:

- **The recognition of national and international mega-regions, and the county's role in a potential Northern California mega-region.** Economic opportunities at the scale of the mega-region include planning for climate change (particular fresh water access and adaptation from rising seas); supporting goods movement and the on-shoring of manufacturing; supporting major transportation enhancements, particularly rail and emphasizing connections to and between urban centers; and financing infrastructure at the scale it is most used, with the acknowledgment that Federal and State funding will continue to diminish.
- **Connect to resurgence in manufacturing.** Local manufacturing development could feature prominently in the county's future phases of commercial growth. The Bay Area is experiencing a reemergence of food manufacturing, in particular local, artisanal food manufacturing with a connection to the farm-to-fork concept. Also, many growing manufacturers in the urban core need access to contract manufacturers, which doesn't yet exist immediately nearby for them.
- **Leverage transportation assets.** Plan for multi-modal transportation choices, identifying different modes depending on specific trip distance. There is increasing integration of the Central Valley and the Bay Area through systems like Amtrak's Capital Corridor links with Sacramento. This is an asset to embrace and build on. Globally, rail connectivity is a central focus of mega-regional planning.
- **Tackle disparity and reduce the skills gap.** Upgrading the skills of the county's local workforce will create a more competitive local economy. There is a substantial opportunity

to upgrade skills of local workforce to prepare local workers for retiring baby boomers in a range of low- to high-wage jobs.

- **Focus on increasing the density of urban centers and retrofitting suburbia.** One of the keys to attracting knowledge jobs is reimagining suburbia and embracing the urban future of work. Work, shopping and living are all disconnected and not walkable in many of our communities. And employees in the knowledge sector are looking for “amenity rich environments.” Key ideas about the urban future of knowledge work follow that: knowledge work requires innovation; innovation results from collaboration; collaboration is more likely in dense settings; urbanism, walkability and amenities provide the density that support innovation; and places that embrace urbanism and walkability will best grow knowledge sector work.

The industry panel identified county strengths, including proximity to rail, the deep water port in Benicia, major highways connecting to the Bay Area and Sacramento regions, and universities. Panelists also indicated real estate affordability and access to particular (e.g., food) suppliers as significant locational advantages. For other panelists, however, the significant distance from major suppliers were cited as a locational challenge. Additional challenges included Federal, State, and local regulatory impediments (e.g., California Environmental Quality Act [CEQA]; Regional Water Quality Control Board); access to capital; and inability to fill middle-wage jobs with adequately-skilled workers.

The key themes and industry insights that emerged from the symposium were used to inform the subsequent technical analyses and MSF Strategy.

### Additional Stakeholder Input

The MSF Team also conducted interviews with planning and economic development staff at the County and all seven incorporated cities, as well as key employers in the county to understand opportunities and challenges facing the public and private sector.

Key findings from interviews conducted with jurisdictions and major employers in the county revealed overarching themes that helped shape the MSF Strategy. Specific jurisdictional development opportunities are summarized below.

Benicia	Dixon	Fairfield	Rio Vista
<ul style="list-style-type: none"> <li>• Industrial park enhancements</li> <li>• 500-acre site adjacent to industrial park</li> <li>• Tourism and recreation (enhance downtown; historical significance; Bay Area Trail)</li> </ul>	<ul style="list-style-type: none"> <li>• Northeast Quadrant Specific Plan</li> <li>• Partnership with UC Davis: campus innovation hub; research labs; agricultural technology incubator space; faculty and student services</li> <li>• Enhance downtown</li> </ul>	<ul style="list-style-type: none"> <li>• Vacant land supply in business and industrial parks</li> <li>• Commercial development in Fairfield Train Station</li> <li>• Forthcoming Downtown Specific Plan (2014)</li> </ul>	<ul style="list-style-type: none"> <li>• Rio Vision planning exercise</li> <li>• Army Base plan (fish hatchery; technology center for fish, mammals; educational center; recreation area)</li> <li>• Industrial and business park (airport-related uses)</li> </ul>

Suisun City	Vacaville	Vallejo	County of Solano
<ul style="list-style-type: none"> <li>Expansion of recreational amenities surrounding the Suisun Marsh (camping/glamping; outdoor recreational facilities; Wildlife Center enhancements)</li> <li>Update Downtown Specific Plan</li> <li>30-acre commercial site</li> <li>Evaluating 200-acre annexation for commercial and industrial uses as part of General Plan Update</li> </ul>	<ul style="list-style-type: none"> <li>Significant land supply (approximately 2,000 vacant acres) zoned for commercial, industrial, and office uses, a lot of which is shovel-ready (must address sewer capacity challenge)</li> <li>Airport-related development (Icon Sport aircraft facility; Doolittle Museum)</li> </ul>	<ul style="list-style-type: none"> <li>Waterfront; Mare Island; Solano 360</li> <li>Enhance downtown</li> <li>Support educational institution expansions (Touro, CSUM)</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural tourism</li> <li>Renewable energy</li> <li>Agricultural processing</li> </ul>

In addition, challenges identified by both county jurisdictions and major employers were organized under the following topics.

Demographics	Education and Workforce Training	Economic Constraints	Marketing and Economic Development
<ul style="list-style-type: none"> <li>Aging population</li> <li>Difficulties attracting/retaining young adult population</li> </ul>	<ul style="list-style-type: none"> <li>Declines in high school graduation rates and University of California readiness</li> <li>Training gaps between employers and employees</li> <li>Vocational training not promoted</li> <li>Post-Travis labor force not fully used</li> </ul>	<ul style="list-style-type: none"> <li>Declines of local government revenues, including the elimination of redevelopment</li> <li>Prevalence of out-commuting</li> <li>Infrastructure and financial feasibility constraints</li> </ul>	<ul style="list-style-type: none"> <li>Limited resources for marketing and promotion activities, implementation of cluster study recommendations</li> <li>Build on evolving market forces, strategies and programs to assist with branding, business attraction/retention, or assistance with State/Federal business regulations</li> <li>County identity?</li> </ul>

## Technical Analyses

The MSF Team conducted four detailed technical analyses that helped shape discussions with MSF Stakeholders and the detailed MSF Strategy. These technical analyses were prepared as memoranda and disseminated to MSF Stakeholders throughout the project. Summaries and key findings from each technical analysis are provided in the following sections; the detailed memoranda are provided in the appendices of this report and include:

- Memorandum #1: Demographic and Economic Profile and Real Estate Analysis.
- Memorandum #2: Economic Development Programs and Services Evaluation.
- Memorandum #3: Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis.
- Memorandum #4: Viable Industries and Clusters Analysis.

## Demographic and Economic Profile and Real Estate Analysis Memorandum #1, March 2014, rev. June 2014 (See Memorandum I)

The keys to identifying economic diversification opportunities and priorities include understanding the demographic and economic context of the county and understanding how available land assets can meet the growth demands of targeted industry sectors. To inform this understanding, the MSF Team conducted two key technical analyses: a detailed **demographic and economic profile** of the county, and a **real estate supply and demand analysis**.

This set of analyses was packaged in an initial memorandum, presented to stakeholders for review and input in March 2014 and revised in June 2014 to incorporate updated information. The analyses presented the county with contextual information regarding demographic and economic trends and projections and a synthesis of existing, vacant land supply and projected real estate demand. Selected key findings, which figured prominently in the development of the MSF Strategy, are highlighted below. Additional findings and the detailed demographic and economic profile and real estate analysis can be found in the technical appendices of this report (**Memorandum I**).

### *Demographic and Economic Profile Key Findings*

The demographic and economic profile provided several conclusions regarding demographic and economic characteristics of county residents, employees, and jobs. Select findings are highlighted below.

- **Principally, the county anticipates strong population and employment growth in the coming decade, relative to the previous decade and relative to projected growth rates in neighboring regions.** The county contains approximately 418,000 residents and 121,000 jobs. The State Department of Finance projects the county will grow by nearly 10 percent, adding more than 40,000 residents by 2023. According to other data sources that publish longer term growth outlooks, the county's population is projected to be between 494,000 and 551,000 by 2040, representing a percentage increase of 21 to 32 percent.<sup>8</sup> Similarly, after experiencing declines in employment over the previous decade, the county is projected to experience employment growth of nearly 20 percent by 2022, according to Moody's Analytics. According to longer term growth outlooks, the county's employment force is projected to be between 166,000 to 241,000 by 2040.
- **One of the county's strengths is providing a lower cost of living and a greater percentage of affordable housing relative to comparison geographies.**<sup>9</sup> With the exception of Benicia, the cities in the county have a substantially lower overall cost of living relative to key cities in the comparison geographies (e.g., Oakland, San Francisco, San Jose, and Roseville) and about the same cost of living as the City of Sacramento. Vallejo, Suisun City, and Rio Vista have the lowest overall cost of living in the county. In addition to Benicia,

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<sup>8</sup> Data sources used to evaluate population growth projections include Woods & Poole Economics, Association of Bay Area Governments (ABAG), California Department of Transportation (CalTrans), and the ABAG Sustainable Communities Strategy (SCS) forecast.

<sup>9</sup> "Comparison geographies" refers to (1) the counties contained in ABAG's service area net of the county (referred to as the "Rest of ABAG"), and (2) the counties contained in the Sacramento Area Council of Governments' (SACOG) service area (referred to as the "Sacramento Region").

Vacaville, Dixon, and Fairfield have the highest cost of living of cities in the county, which is solely attributable to higher housing costs. Nevertheless, nearly three-quarters of all housing in the county (74 percent) is affordable to families earning the county median income. In comparison, 66 percent of housing in the Sacramento Region, 37 percent of housing in the Rest of ABAG, and 47 percent of housing in the State is affordable to families earning the median income.

- **High levels of out-commuting by county residents to high-wage jobs indicate an opportunity for county businesses to attract a greater percentage of employable residents.** One reason for high levels of out-commuting is the differential between employed residents (approximately 182,000) and the number of jobs in the county (approximately 120,000). Other reasons include worker preferences to work outside the county for a better job fit, worker housing preferences, and higher wage jobs outside the county.
- **The county's economy is much less diverse than the Rest of ABAG and the State but is similar to the Sacramento Region.** Because this study's purpose is to assist the county in addressing economic diversification issues, it is not surprising the county ranks 0.87 on the Shannon-Weaver Diversity Index, well below a "perfectly diversified" economy score of 1.0.<sup>10</sup> Comparatively, the Rest of ABAG has a diversity index of 0.91, and the State has a diversity index of 0.92; the Sacramento Region has a diversity index equal to the county. It is important to note that small differences in the index score are significant in terms of the level of diversification.
- **The county would benefit from focused economic development program activities related to both specialized and underspecialized base sectors, which drive economic development.** In the county, the base employment sectors of manufacturing and government account for more than half of base-sector activities.<sup>11</sup> The government sector is specialized relative to the State and has gained jobs over the past decade, while manufacturing is slightly underspecialized and has experienced a very slight decline in jobs since 2002 (-0.1 percent).

Manufacturing is the largest base sector and is expected to see negative employment growth in the next 10 years, highlighting the need to maintain and grow this sector, particularly as it is an important component of the county's focus clusters (e.g., life sciences, energy, and food chain).

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<sup>10</sup> The Shannon-Weaver Diversity Index is a quantitative measure that reflects how many different types (industries) there are in a dataset and simultaneously takes into account how evenly the basic entities (jobs) are distributed among those types.

<sup>11</sup> Typical characteristics of base-sector activities include these:

- Facing few geographical constraints, allowing them to operate anywhere deemed attractive.
- Producing a significant amount of goods and services for domestic and international export.
- Bringing net new wealth into an economy.

Conversely, local-sector activities are located to serve a local market's residents or base sectors and produce goods and services for local consumption, which generally moves wealth around a local area.

- **The county primarily is composed of small businesses with fewer than 20 employees, indicating the importance of supporting and growing these types of businesses.** More than 70 percent of county businesses contain fewer than 10 employees, and 85 percent of businesses in the county contain fewer than 20 employees, consistent with comparison geographies. Thus, the county should continue to support programs and services that assist this classification of businesses by understanding challenges and opportunities specific to small businesses in the county.
- **In general, cities in the county have a favorable cost-of-doing-business index relative to proximate cities in surrounding counties but should focus on creating value for residents to attract and retain employers.** The cost-of-doing-business index accounts for taxes, fees, and economic development programs as part of the underlying cost comparisons. Vacaville ranks “very low,” Fairfield and Benicia rank “average,” and Vallejo is the only city in the county with a “very high” ranking. The rankings put these communities between cost ratings measured in communities in the Rest of ABAG and the Sacramento Region, which, for the most part, are classified as either “high” or “very high.” The results of this survey demonstrate that communities in the county generally have a regional and broader advantage in terms of the cost of doing business. However, a low cost of doing business is not sufficient without a focus to create a high quality of life for residents. A strategy to create value for residents, while continuing to manage costs, will assist in retaining and attracting new employers to the county.

#### ***Real Estate Analysis Key Findings***

The initial MSF memorandum also provided a detailed analysis of real estate market performance indicators and real estate supply and demand in the county. The real estate analysis focused on the estimated supply of and demand for commercial office and industrial land in the county.

The land supply, an inventory of existing, vacant land parcels, was categorized into three types of opportunity sites: **first-tier**, representing immediate development potential; **second-tier**, representing medium-term development potential, and **third-tier**, representing long-term development potential. The inventory of available land, currently zoned office or industrial, by tier is provided in Appendix C of the memorandum (**Memorandum I** included in this report). In addition, Appendix C includes maps which cite the location and relative size of vacant parcels, by tier, throughout the county. The supply inventory is an important resource the county can use to understand their land assets and more effectively market “shovel-ready” parcels, and prepare second-tier, and to the extent necessary, third-tier sites, for accommodating future real estate demand.

Selected key findings from the real estate analysis are presented below.

#### **Supply Estimates**

- **This study estimates the county contains nearly 7,500 acres of vacant land zoned for commercial office and industrial uses, with 3,180 acres (42 percent) included in incorporated cities.** As a basis for assessing real estate supply, which could accommodate short-, medium-, and long-term real estate demand, this memorandum includes three estimated categories of supply: first-tier, second-tier, and third-tier. The tiers of real estate supply reflect land in various stages of development readiness, with the first-tier category able to accommodate immediate real estate demand, and the third-tier reflecting “zoned

capacity” only. A preliminary assessment of first-tier land supply indicates the county contains approximately 680 acres of office and industrial land, all of which is contained in incorporated cities. Further, most of this vacant space (more than 90 percent) is contained in existing business parks in the cities of Fairfield and Vacaville.

- **In cities, a majority of short-term land supply is zoned to accommodate commercial space.** Nearly 60 percent of currently vacant land that could accommodate immediate real estate demand is zoned for office development. With soft office market performance indicators and future demand for industries requiring industrial and R&D/Flex space, the county may consider reviewing zoning designations to ensure the ability to capture future industrial growth in the county.

#### Demand Projections

- **Between 1,120 and 1,730 acres of commercial office and industrial development is estimated to be demanded in the county over the next 20 years (2013-2033).** By 2033, the county is anticipated to experience demand for between 1,120 acres and 1,730 acres (i.e., 9.8 million square feet to 15.2 million square feet) of commercial office and industrial space. This demand translates into an annual absorption ranging from 56 acres to 86 acres (i.e., 491,000 to 760,000 square feet) of commercial office and industrial space. An overwhelming majority of this demand (80 percent) is anticipated to be for industrial space, including R&D/Flex space. While 20 percent of demand is anticipated for office space, future tenants in county business parks likely will seek “office flex” space; “pure” office users—including those seeking class A office space—may be best positioned in mixed-use city centers.

#### Supply and Demand Comparison Conclusions

- **A preliminary evaluation of real estate supply and demand indicates incorporated cities have sufficient land to accommodate the next 20 years of real estate demand.** Over a 20-year period (2013–2033), the county is estimated to have ample vacant land supply to accommodate projected real estate demand for commercial office and industrial development. Even in the short term, a review of existing vacant land comprising immediate development potential indicates sufficient land to accommodate the next 5 years of real estate demand for commercial office and industrial space combined. However, a comparison of first-tier opportunity sites and demand for future real estate development indicates the potential need to review zoning designations to ensure industrial and R&D/Flex space demand can be accommodated.

A comparison between the existing, vacant land supply and projected demand in the county is summarized below. As shown, the comparison indicates a required balance of up to about 360 acres of third-tier land supply. As the first-tier vacant land is exhausted, the market will need to respond with investment to the vacant land categorized as both second-tier and third-tier lands.

Item	Acres		
	Low	Medium	High
Demand (2013-2033)	1,120	1,440	1,730
Less First-Tier Supply	(680)	(680)	(680)
Less Second-Tier Supply	(690)	(690)	(690)
<b>Balanced Required in Third-Tier Supply</b>	<b>0</b>	<b>70</b>	<b>360</b>

- **About 60 percent of the vacant land in cities is categorized as third-tier, requiring significant infrastructure investments to support future real estate development.** Incorporated cities contain about 1,800 acres and the unincorporated county contains about 4,300 acres of vacant land categorized as third-tier land. A portion of the unincorporated county’s land may be ideal in responding to medium to longer term real estate demand.
- **The county should focus on several actions to elevate the county’s position and fuel growth in the economy.** Based on conversations with local real estate brokers, the county should focus on these to spur economic development:
  - Continue to improve the county’s transportation infrastructure.
  - Invest in broadband connectivity.
  - Improve the county’s schools and post-secondary educational institutions.
  - Incentivize the development community and specific tenants to focus on developing intramarket sectors for the wine and warehousing industries.
- **The county should focus on facilitating development in areas that are in a stronger position to support future real estate demand.** Areas in the county best positioned to accommodate new employment growth include the shovel-ready land in the cities of Fairfield and Vacaville. To that end, the City of Fairfield, with excellent proximity to Napa Valley, has become a prime location for attracting additional wine-related manufacturing growth. The City of Vacaville has continued to define itself as a viable life science locale by attracting, retaining, and expanding major businesses, such as Genentech and Alza, and may be able to attract additional biomedical and pharmaceutical companies with increased employment growth.

## **Economic Development Programs and Services Evaluation Memorandum #2, March 2014 (See Memorandum I)**

In the second technical analysis, presented to MSF Stakeholders in March 2014, the MSF Team evaluated the regional economic development (ED) ecosystem to understand the roles, outcomes, and gaps of ED entities currently operating in the county. The purpose of this evaluation was the recognition that effective delivery of regional economic development programs and services will be a key driver for enhancing economic vitality and realizing a more diversified economy in the county.

The evaluation of the regional ED ecosystem focused on existing regional ED programs and services in the county relative to a typical suite of “best practice” regional ED programs and services. These “best practice” regional ED programs generally fall into six main categories, including Business Attraction and Marketing, Business Retention and Expansion, Entrepreneurial and Small Business Development, Business Finance, Technology Development, and Workforce Development.

Selected key findings from the evaluation are provided below. The detailed regional ED evaluation is provided in the technical appendices of this report (**Memorandum II**).

### ***Regional ED Entities in Solano County***

The primary regional entities delivering economic development programs and services in the county include:

- **The Solano EDC.** The Solano EDC is the primary regional ED entity in the county and focuses mainly on business attraction and marketing as well as business retention and expansion. With a broad mission of providing leadership for the county’s economic growth, the Solano EDC’s work program also includes project management, advocacy, and strategic partnerships. In addition, being a member-supported organization, the Solano EDC puts on various events and offers programs that benefit members.
- **The Solano College Small Business Development Center (SBDC).** The SBDC provides services in the entrepreneurial and small business development and business finance categories including business training and technical assistance in a wide range of topics plus administration of a micro-enterprise loan fund.
- **Workforce Investment Board of Solano County (WIB) and the Solano Community College (SCC) Economic and Workforce Development program.** Both the WIB and SCC fall in the workforce development arena. Like most equivalent entities in the State, the WIB offers hiring assistance for job seekers and employers, supports training for job readiness, and helps connect eligible parties to workforce incentives. The SCC’s related services offer training programs for employers through contract education.

***Regional ED Recommendations***

Overall, the review of the economic development ecosystem in the County suggests the county should consider addressing the following four items:

1. Rebalance program focus for economic diversification—emphasize business attraction and marketing as well as business retention and expansion.
2. Integrate contemporary tools for economic development—invest in activities that generate increased awareness and conversations with companies.
3. Enhance resources and strategic partnerships—build sustained capacity for program priorities.
4. Adopt a performance-based system—continuously demonstrate value and outcomes to companies and investors regardless of current resource levels.

Changing the economic development ecosystem could allow the county to compete more effectively for new business locations and expansions, build economic vitality, and facilitate greater economic diversity.

## SWOT Analysis

### Memorandum #3, April 2014 (See Memorandum III)

Building on insights and key findings from the previous technical analyses, symposium, MSF Stakeholders, and other stakeholder interviews, the MSF Team prepared a SWOT analysis to identify internal and external characteristics pertaining to economic development in the county. The purpose of the analysis was to allow the county to gain a better understanding of current, high-priority characteristics to guide development of the MSF Strategy.

The SWOT analysis was organized by internal factors (strengths and weaknesses) and external factors (opportunities and threats). Internal factors are those characteristics in which communities can have an influence in the short to medium term. External factors are those characteristics driven by outside forces and generally are beyond the influence of local communities.

The preliminary SWOT analysis was presented to MSF stakeholders during meetings conducted in February 2014 for the purpose of refining and prioritizing the universe of strengths, weaknesses, opportunities, and threats pertaining to the county. **Figure 1-3** shows the prioritized listing of strengths, weaknesses, opportunities, and threats based on input from the MSF stakeholders. The detailed SWOT analysis is provided in the technical appendices of this report (**Memorandum III**).

**Figure 1-3. Prioritized SWOT Analysis**

Strengths (Internal)	Weaknesses (Internal)
<ol style="list-style-type: none"> <li>1. Strategic location with key transportation infrastructure (highways, rail, deep water port)</li> <li>2. Large development opportunity areas</li> <li>3. Affordable housing stock and lower cost of living than the Bay Area region</li> <li>4. Natural assets for food and agriculture to support the Food Chain cluster</li> <li>5. Surplus utilities supply and capacity (water, sewer) in portions of the county</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of unifying county brand/identity</li> <li>2. Underperforming schools</li> <li>3. Gaps between workforce skills and local job opportunities</li> <li>4. EDC: resource constraints</li> <li>5. Crime and public safety issues and other socioeconomic challenges</li> </ol>
Opportunities (External)	Threats (External)
<ol style="list-style-type: none"> <li>1. Proximity to and location between two established and growing regions</li> <li>2. Visibility from I-80 for multiple communities</li> <li>3. Major research-oriented institutions in surrounding regions</li> <li>4. Broad national attention on energy, food, and agriculture products</li> <li>5. International demand for energy, food, medical, and agriculture products</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of State and Federal funding for infrastructure</li> <li>2. Challenges associated with negative perceptions of doing business in the State</li> <li>3. Regulatory impediments</li> <li>4. Elimination of redevelopment and modified state incentive structure</li> <li>5. Negative perceptions of county and lack of a positive business identity</li> </ol>

## **Viable Industries and Clusters Analysis**

### **Memorandum #4, April 2014 (See Memorandum IV)**

The MSF Team conducted an analysis of viable industries and clusters for which the county should focus to assist in diversifying its economy, serving as the fourth and final key input for the MSF Strategy. The purpose of the analysis was to allow the county to focus limited resources on targeted industries and clusters that demonstrate viable opportunities for growth and development in the local economy. For example, targets should be used in the process of selecting industry trade shows to attend, choosing existing companies for site visits, identifying gaps in the value chain, singling out related site selection professionals, and developing marketing materials.

Selected key findings from the viable industries and clusters analysis are highlighted below. For additional details, the detailed viable industries and clusters analysis is provided in the technical appendices of this report (**Memorandum IV**).

#### ***Viable Industries***

The analysis identified five industries that posted the strongest performance in the county for a variety of key economic factors. These industries should be used, in part, to inform targeting efforts:

- **Manufacturing** presents several desirable characteristics in the county. The industry is relatively large (both in terms of employment and output), contains exclusively economic base activities, supports strong compensation per employee levels, and is a field where a notable share of residents are employed both in and outside the county. It is important to note that Manufacturing is becoming an increasingly output-driven industry, with output specialization, high output per employee levels, and strong output growth, while employment levels in the industry are underspecialized and declining.<sup>12</sup>
- **Health Care & Social Assistance** is a large, growing, and specialized industry based on both employment and output in the county. Among all the major sectors, it is the industry where the largest share of county residents work.<sup>13</sup>
- **Natural Resources & Mining** is composed of all economic base activities. Jobs and economic value in the industry have been increasing over the past decade in the county. The industry also supports strong output and compensation per employee levels.<sup>14</sup>
- **Retail Trade** accounts for relatively large shares of total county employment and output. The industry is specialized with greater proportions of employment and output than the statewide average. Many county residents also are employed in this industry. It is important

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<sup>12</sup> The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

<sup>13</sup> The Health Care & Social Assistance sector comprises establishments providing health care and social assistance for individuals.

<sup>14</sup> The Natural Resources & Mining sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas.

to note that while this industry has seen success in the county, it supports only a limited amount of economic base activity, as well as lower output and compensation per employee levels. Therefore, opportunities in this area should be weighed carefully alongside other viable industries.<sup>15</sup>

### ***Viable Clusters***

In 2009 and 2011, the County, in collaboration with the Solano EDC, procured a series of cluster studies focusing on Energy, Life Sciences, and the Food Chain. These studies defined the clusters, examined economic performance, and offered a set of recommendations for supporting enhanced growth.<sup>16</sup>

As an update to these studies, the MSF Team completed an analysis to validate identified opportunities and identify additional viable cluster activities. It is important to distinguish that the recommendations supporting this analysis are specifically related to the delivery of enhanced business attraction and marketing and business retention and expansion programs and the need to target limited resources in these areas and not necessarily the creation of stand-alone, cluster-based programs that integrate a wide variety of services specifically created for cluster development (which some larger, integrated, and more mature regions have adopted).

The MSF Team analyzed historical and projected economic performance across nearly 300 detailed economic activities in the county to identify a set of potentially viable cluster opportunities. In addition to economic performance, a set of cluster screens and several other factors were evaluated to assess the viability of the identified clusters.<sup>17</sup>

Ultimately, four viable clusters were identified based on the MSF Team’s methodology—Energy, Food Chain, Medical & Life Sciences, and Advanced Materials. Three of the four are similar to those clusters identified in the previous studies, but the definition of each cluster has been modified to include additional economic activities.

#### **Solano Countywide Targeted Clusters**

##### **Energy**

*\$1.9B in annual output; 5,400 jobs*

##### **Food Chain**

*\$1.4B in annual output; 9,500 jobs*

##### **Medical and Life Sciences**

*\$1.8B in annual output; 11,400 jobs*

##### **Advanced Materials**

*\$2.2B in annual output; 8,400 jobs*

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<sup>15</sup> The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

<sup>16</sup> The previous cluster studies are available at [http://www.solanocounty.com/depts/bos/working\\_to\\_create\\_jobs/economic\\_studies.asp](http://www.solanocounty.com/depts/bos/working_to_create_jobs/economic_studies.asp).

<sup>17</sup> The Technical Approach section at the end of this memorandum describes the cluster selection methodology.

## Key Outcomes of the Project

In addition to the MSF Strategy, which provides the county with a strategic framework for diversifying its economy over the next 5 years, the MSF project has produced a number of important tools that are integral components of the implementation phase of the strategy.

- **Continued Regional Collaboration.** The county, known for collaborating on other county issues such as regional transportation and other infrastructure improvements, worked together to review and provide input on the technical analyses and economic diversification strategy components associated with the MSF project. The collaborative effort, primarily comprised of MSF Partners and the MSF Review Committee, was inclusive of myriad civic and business leaders in the county, including: elected officials; economic development and planning staff at each of the county's jurisdictions; TAFB representatives; non-profit representatives and other county service providers; and key private-sector industry representatives. Ultimately, MSF Partners and the MSF Review Committee were called upon to reach consensus on strategy components thereby strengthening working relationships, which will be integral for moving forward with implementation.
- **Detailed Database and Maps of Vacant Land Supply in County.** As part of Memorandum #1 (Appendix C), the MSF Team compiled data from jurisdictions related to vacant land located throughout the county zoned for commercial office and industrial space. The data was organized into a database categorized by three tiers of development potential ranging from immediate development potential to longer-term development potential based on the extent of infrastructure improvements on and surrounding each parcel. In addition, Memorandum #1 includes maps showing the location of each of these sites. Both the database and maps are essential tools to assisting the county prepare for future expansions and relocations of existing businesses, as well as attraction of new businesses, especially as it relates to supporting the growth of cluster-focused businesses. The MSF Strategy utilizes these tools to achieve the overarching vision and objective, as described further in the following sections of this report.
- **Consolidated Listing of Business and Industrial Parks.** Larger business and industrial sites are a key part of the county's ability to attract and retain large firms in a range of development from manufacturing to research and development (R&D) in the targeted clusters. These businesses can help anchor the region's economy and provide existing local companies with markets and services that drive employment growth. Vacant land within existing business and industrial parks and other large-scale development opportunities in the county are included in the vacant land supply database and maps that are described above. In addition, Memorandum #1 provides a summary of each of these business and industrial parks and other large scale development opportunities, including each park/opportunity area's location, vacant acreage, the extent of infrastructure improvements to serve the vacant acreage, and existing mix of tenants. This information can be used to help focus economic development efforts related to the retention, expansion, and attraction of cluster-focused businesses in the county. In addition, this information will assist the county in evaluating the feasibility of retrofitting existing business and industrial parks with key amenities to improve the capture of desired tenants.

- **Prioritized Listing of County Strengths, Weaknesses, Opportunities, and Threats.** One of the collaborative exercises conducted by MSF stakeholders included building consensus around county characteristics related to economic development that should be prioritized. In particular, stakeholders identified top strengths that should be promoted, weaknesses that should be addressed, opportunities for which the county should prepare, and threats the county should mitigate, to the extent possible. These priority characteristics helped to shape the MSF Strategy and will also help in other efforts, such as formulating marketing and branding strategies for the county.
- **Identification of Viable Clusters.** The viable clusters analysis reinforced and expanded the definition of clusters in which the county should focus to boost competitiveness, enhance economic vitality, and diversify the local economy. Several years ago, the County, in collaboration with the Solano EDC, identified three clusters to focus economic development activities. In the MSF Team’s analysis, four viable clusters were identified—Energy; Food Chain; Medical & Life Sciences; and Advanced Materials. The first three confirmed the County and Solano EDC’s previous findings although the definition of each cluster was modified to include additional economic activities. The fourth cluster (Advanced Materials) is a new cluster and includes a wide array of high-tech engineered materials, components, and systems, as well as the commodities, products, processes, and instruments to make and monitor the materials. Focusing economic development efforts on these clusters will support the potential for increased job and wealth creation in the county, and will strengthen the local economy as a location for these distinct economic activities.

MOVING SOLANO FORWARD  
Economic Diversification Strategy



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# *MOVING SOLANO FORWARD*

## *ECONOMIC DIVERSIFICATION STRATEGY*

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The MSF Strategy is the culmination of key technical analyses, input from MSF stakeholders, and in-depth interviews with other civic and business leaders throughout the county. As a result of this large body of quantitative and qualitative research and input, a unifying vision and objective and three overarching goals were developed by the project team and stakeholders to guide the MSF Strategy.

### **A Unifying Vision and Objective for the County**

**VISION:** The County region will work collaboratively to create a diverse and robust economy focused on city-driven growth, desired industry cluster growth in targeted locations, viable agricultural uses, and strengthened recreational assets that expand economic opportunities for employers and residents.

**OBJECTIVE:** Identify and prioritize strategic public investments to induce private-sector investments to diversify and grow the county's economy by:

- Identifying key issues and opportunities.
- Aligning interests and resources.
- Pursuing high-priority initiatives.

### **Overarching Goals Guiding Strategy**

Diversifying the county's economy will require a multi-pronged approach that prioritizes enhancing the county's development capacity, in addition to strengthening economic and workforce development programs and services and improving the county as a high quality-of-life locale. The overarching goals guiding the MSF Strategy are summarized below and described in greater detail in the following sections.

1. Enhancing Countywide Development Capacity.
2. Strengthening Regional Economic Development and Workforce Development Programs and Services.
3. Improving the Quality of Life for County Residents and Businesses.

#### **Goal 1: Enhance Countywide Development Capacity**

The county is strategically located along a major transportation corridor (I-80) connecting two established regions: the Bay Area and Sacramento Regions. And, as identified in the initial memorandum for this project, the county is projected to experience strong population and employment growth in the coming decade relative to projected growth rates in neighboring regions. In addition, the county boasts a relatively low cost of land, affordable lease rates, and a community college system that has successfully supplied local advanced manufacturers and other skill-intensive firms with effective labor. Given these dynamics, the county is poised to

capitalize on one of its greatest assets: the county's development capacity. Specifically, the county's land supply (a total of nearly 7,500 acres of vacant land zoned for commercial office and industrial uses) is a major competitive advantage, with substantial "shovel-ready" land assets positioned in critical locations throughout the county.<sup>18</sup> Further, the county has many opportunities for redevelopment and reuse of a substantial amount of vacant, available space located throughout the county.<sup>19</sup>

Guided by input from the MSF Stakeholders, the initial strategy to enhance the county's development capacity include implementation actions that would improve the form and function of the I-80 corridor, as well as other major transportation corridors in the county (e.g., Interstate 680 [I-680]; Highway 12). These actions include conducting a visioning study that would evaluate the complete picture of the county's major arterial connectors and identify potential improvements that would allow the county to accomplish a variety of objectives, including strengthening ties to the University of California at Davis (UCD) by potentially offering incubation or start-up space in Dixon related to food chain or other targeted clusters prominent at UCD; continuing to define itself as a viable medical and life science locale in Vacaville by retaining and expanding existing businesses and attracting additional biomedical and pharmaceutical companies; highlighting key county gateways and connections by refining freeway signage content, placement, and major arterial street names; and exploring opportunities for marketing and branding the county's intended image.

In addition, the strategies proposed for enhancing the county's development capacity should focus on accommodating existing, expanding, and new businesses related to the targeted clusters (Energy; Food Chain; Medical and Life Sciences; and Advanced Materials). In particular, it will be important to examine the real estate and labor needs associated with the range of users in each targeted clusters to more effectively market "shovel-ready" sites (Tier 1 sites) identified in Memorandum #1 (**Memorandum I** of this report). Further, the county should focus on preparing Tier 2 and Tier 3 sites to accommodate cluster-focused and other industrial development needs, including identifying the best sites for strategic public investment in infrastructure improvements—in particular transportation and broadband connectivity—and evaluating the feasibility of a regional approach to funding regional capital improvements.

Finally, the county should focus on creating "amenity-rich" environments in existing business parks and other appropriate sites. A final strategy related to enhancing the county's development capacity addresses coordinating with developers and landowners to create business parks and other sites (typically, infill) with mixed-use nodes to improve the capture of desired tenants, lease rates, and overall performance. The objective of these sites, referred to as "innovation parks," will be to attract innovative companies and create a notable sense of place to assist in diversifying the county economy.

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<sup>18</sup> Refer to Appendix C of the initial Demographic and Economic Profile and Real Estate Analysis memorandum (Memorandum #1, **Memorandum I** of the report) for a database and corresponding maps of vacant commercial office and industrial parcels throughout the county.

<sup>19</sup> Refer to Appendix B of Memorandum #1 (**Memorandum I** of the report) for total vacant building space currently being marketed throughout the county.

## **Goal 2: Strengthen Regional ED and Workforce Development Programs and Services**

The county's economy is much less diversified than the rest of the greater Bay Area and the State and experienced greater rates of employment declines in the past 5 years compared to these two benchmarks. In addition, only 30 percent of the county's employment is supported by economic base activities, which generate net new wealth in the economy by providing goods and services for domestic and international export. In the past 5 years, employment in the county's economic base activities declined, but at a slightly slower rate than the local-serving activities and the county economy overall. To help target efforts focused on enhancing economic vitality, a group of industries and clusters were identified that demonstrate viable opportunities for growth and development in the regional economy such as Energy, Food Chain, Medical & Life Sciences; and Advanced Materials. These dynamics demonstrate the need for further diversification of the county economy, particularly focused on economic base activities as well as viable industries and clusters.

Effective delivery of regional economic development and workforce development programs and services will be a key driver of enhancing economic vitality and realizing a more diversified economy in the county. The regional economic development ecosystem contains a handful of core entities that are providing some of the services in many of the standard economic development program categories. However, there are several key challenges that the region faces in the effective delivery of regional programs and services including availability and alignment of resources, limited use of contemporary tools and techniques, and a lack of ongoing performance evaluation. In addition, the previous county cluster reports and stakeholder engagement revealed real and perceived gaps between workforce skills and local job opportunities. Moreover, the lack of a unifying county brand or identity was identified as the most critical weakness for enhancing diversification of the county economy. Strengthening the regional economic development and workforce development programs and services should allow the county to compete more effectively for new business locations and expansions, align workforce skills with the demands of regional employers, build economic vitality, and facilitate greater economic diversity.

## **Goal 3: Improve Quality of Life for County Residents and Businesses**

In concert with directing policies and resources towards enhancing countywide development capacity and strengthening economic development and workforce development programs and services, the county would benefit significantly from countywide investment in quality of life variables.

Improving the quality of life—the quality of the environment a city or region has to offer—is desirable in and of itself. However, in the increasingly competitive global knowledge economy, it is the shape and nature of communities that have a significant impact on the locational decisions of residents and businesses. Producing, attracting and retaining knowledge economy workers is a critical element for supporting and diversifying the local economy. Further, a city or region's public investment in improving quality of life variables is integral to creating a sense of long-term stability to help induce private investment.

There are several studies that indicate that investment in quality of life factors is increasingly important in retaining and attracting residents and businesses. In a national poll conducted by

the American Planning Association (APA) in 2012, two-thirds of those surveyed believe investing in schools and community features, such as schools, transportation choices, walkable areas, parks, and trails, is a better way to grow the economy than investing in recruiting companies.<sup>20</sup>

Further, one of the most often cited reasons for the location of a new business, especially a small business, is quality of life, yet it is one of the areas policymakers most often overlook in attracting entrepreneurs and the highly skilled people who most often work for them.<sup>21</sup> In a study that attempted to objectively measure the impact of the most influential quality of life variables—per capita crime rate; high school or equivalent educational attainment rate; per capita access to recreational facilities; and percentage of children under the age of 5 living in poverty—the results indicated quality-of-life factors appear to be able to explain roughly a third of new-business formations across the country by metro area. The study also indicated a relationship between high quality of life factors and the number of successful new businesses being started.<sup>22</sup>

Improving the quality of life for county residents and businesses was a theme that emerged consistently over the course of the project. The MSF Strategy incorporates strategies that directly respond to these themes. The topic was initially introduced as part of the MSF Stakeholder symposium related to increasing the attraction and retention of knowledge sector employees with “amenity-rich environments.” Insights gleaned from conversations with MSF Stakeholders and other civic and business leaders in the county indicated several areas where the county could improve its quality of life for residents and businesses, including metrics associated with educational achievement and attainment, crime rates, and a sense of public safety. Indeed, high-quality educational facilities and low crime rates are two of the most desirable characteristics sought after by residents and businesses and improving these quality of life factors would help the county compete for talent and diversify its economy. Additional comments from stakeholders recognized the need to bolster other quality of life variables including recreational, cultural, and artistic amenities and supporting the development of walkable downtowns or other sites that provide opportunities for collaboration and promote the county as a desirable place to live and work. In addition, the MSF Stakeholders recognized an opportunity to capitalize on one of the county’s strengths—a low cost of living and affordable housing relative to neighboring regions—and suggested including a strategy that would encourage the development of a wide variety of housing types to accommodate and attract a skilled workforce.

The strategies that emerged from the MSF process related to improving the quality of life will assist the region in creating high quality jobs, generating private investment, promoting the region’s long-term fiscal health, and ultimately having a measurable impact on diversifying the local economy.

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<sup>20</sup> “Investing in Place: Two Generations’ View on the Future of Communities: Millennials, Boomers, & New Directions for Planning and Economic Development.” American Planning Association, May 2014.

<sup>21</sup> White, Dan and Douglas Wynne, Moody’s Analytics, Q2 2014. “The Regional Impact of Quality of Life on Entrepreneurial Decisions.” Area Development Online. [www.areadevelopment.com](http://www.areadevelopment.com).

<sup>22</sup> Ibid.

## Moving SOLANO Forward Strategy

To achieve these goals, the MSF Strategy outlines a set of strategies and detailed implementation actions. With the input of the MSF Stakeholders, the MSF Strategy also identifies implementing entities—both the lead agency and other partners who are anticipated to assist the lead agency in directing the successful implementation of each action. The MSF Strategy also identifies a timeline for initiation and ongoing implementation.<sup>23</sup>

The MSF Strategy relies on the MSF Partners to serve as champions, promoting the strategies and providing the leadership and expertise necessary for successful implementation. It is anticipated that the MSF Strategy will continue to be reviewed and refined over the course of implementation based on a variety of factors such as changing market conditions, new opportunities, and unanticipated challenges.

### Next Steps

While some implementation actions are ready to be executed, others require additional financial or human resources. The MSF Strategy will require the leadership of the **MSF Partners** and other civic and business leaders in the county, as well as the resources of the public and private sectors to be successfully implemented over the next 5 years. Specifically, it is anticipated that members of the MSF Partners stakeholder group will seek formal adoption of the MSF Strategy by each incorporated city in the county to assist in funding and implementing the action items contained herein.

The following priority implementation actions are identified to be implemented in the first year:

#### Goal 1 Priority Implementation Actions

- Conduct a **visioning study** that identifies potential improvements that would enhance the corridor's urban form as an initial step in re-envisioning the form and function of the I-80 corridor and other major transportation corridors in the county (Implementation Action 1.1a).
- Determine **specific real estate and labor needs associated with the range of users** in each targeted cluster to more effectively market shovel-ready (Tier 1) sites and viable, vacant buildings to cluster-focused users (Implementation Action 1.2a).
- Identify **best-positioned Tier 2 and Tier 3 sites for strategic public investment** in infrastructure improvements to prepare sites for cluster-focused and other industrial development land needs (Implementation Action 1.3a).
- Explore and **identify Federal, State, and regional financing sources** and conduct focused evaluation of each mechanism relative to level and type of funding need to fund regional infrastructure to improve existing, vacant buildings and prepare land for development opportunities (Implementation Action 1.4a).

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<sup>23</sup> Note regarding the timeline: the bolded capital "X" denotes the primary year of implementation, while the non-bolded, lowercase "x" denotes ongoing years of implementation.

## Goal 2 Priority Implementation Actions

- Focus on **regional business retention and expansion, as well as business attraction and marketing efforts** by preparing and executing a countywide, comprehensive five-year organizational strategic plan, defining resource requirements and developing a value-based fundraising effort, and targeting viable clusters and industries in economic development efforts (Implementation Actions 2.1a, 2.1b, and 2.1c).
- Focus on **aligning workforce skills and the skill set demand of cluster-related employers** in the county by forming private-sector industry and cluster coalitions to provide input on workforce demand and creating a standing workforce engagement team consisting of education and training providers and other workforce development entities (Implementation Actions 2.2a and 2.2b)
- Develop a **messaging strategy for economic development purposes** by developing an external brand, integrating contemporary marketing tools and tactics with economic development efforts, and building a structure to track the outcomes of the messaging strategy (Implementation Actions 2.3a, 2.3b, and 2.3d).

## Goal 3 Priority Implementation Actions

- Strengthen K-12 schools and linkages to higher education in the county by establishing **formal partnerships between local businesses, non-profits, and community organizations with schools** throughout the county and increasing opportunities for arts, language, music, Science, Technology, Engineering, and Mathematics (STEM), and Career Technical Education (CTE) related to identified county clusters (Implementation Actions 3.1a and 3.1c).
- Form a **countywide crime rate improvement and prevention task force** to improve countywide crime rates and sense of public safety (Implementation Action 3.2a).
- Encourage the **development of a wide variety of housing types** by ensuring the Housing Elements of each city accommodates an appropriate mix of different housing types, directing public funding towards acquiring, assembling, and preparing specific sites to accommodate desired residential development, collecting an inventory of funding sources (in conjunction with Implementation Action 1.4a), and creating residential development incentive programs that provide incentives to encourage desired residential development (Implementation Actions 3.5a, 3.5b, 3.5c, and 3.5d).

Refer to following section for more details related to these initial implementation actions and all remaining implementation actions proposed over the next five years (2014-2019).



# Solano Economic Diversification Implementation Strategy

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# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

## Strategy 1.1: Re-envision the form and function of the Interstate-80 (I-80) corridor and other major transportation corridors in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.1a. Conduct visioning study that identifies potential improvements that would enhance the urban form of the county’s major transportation corridors.</b></p> <p><i>Lead Agency: County</i></p> <p><i>Other Partners: Cities; STA; School Districts; Universities; Colleges; Brokerage Community; Solano EDC</i></p> <ul style="list-style-type: none"> <li>Using a case study approach, evaluate comparable regions that have successfully transformed a major freeway corridor.</li> <li>Identify improvements that would enhance the I-80 and other major transportation corridors in the county (Interstate 680 [I-680]; Interstate 780 [I-780]; Interstate 505 [I-505]; Highway 12; Highway 113). Incorporate relevant findings from Rio Vista Vision project.</li> <li>Explore options for working with Caltrans to refine freeway signage content and placement to highlight key county gateways and connections (e.g., Highway 12 connections to Napa and Delta regions; Highway 37 connections to Sonoma and Marin counties; downtowns, recreational assets, cultural centers, universities, etc.).</li> <li>Establish countywide design standards for architecture, fencing, vegetation/screening, and signage in freeway-adjacent areas.</li> <li>Evaluate key arterial street names to convey intended image of county.</li> <li>Explore opportunities for marketing and branding (e.g., “Prosperity Corridor). Key messaging themes may include K-12 and higher educational opportunities in the county.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of visioning study, leading to concrete recommendations to be implemented</li> </ul>	X	x			



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

## Strategy 1.1: Re-envision the form and function of the Interstate-80 (I-80) corridor and other major transportation corridors in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.1b. Consider strategic catalyst locations along the I-80 corridor and other major transportation corridors for current and potential new projects of countywide significance and initiate “fatal flaw” level real estate feasibility analyses.</b></p> <p><b>Lead Agency: County</b></p> <p><b>Other Partners: Cities; STA; School Districts; Universities; Colleges; Brokerage Community; Solano EDC</b></p> <ul style="list-style-type: none"> <li>As part of or following completion of the visioning study, identify sites along the I-80 corridor and other major transportation corridors that could accommodate campus-scale development. Market, recruit, and direct campus-scale development to key locations, including Mare Island; downtown Vallejo; Solano Fairgrounds; Suisun City Transit-Oriented Development (TOD); Lagoon Valley; and Fairfield Train Station.</li> </ul>	<ul style="list-style-type: none"> <li>Recruitment and development of campus-scale users</li> </ul>			X	x	



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

## Strategy 1.1: Re-envision the form and function of the Interstate-80 (I-80) corridor and other major transportation corridors in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.1c. Maximize economic performance of frontage uses.</b></p> <p><i>Lead Agency: Planning Directors Group</i></p> <p><i>Other Partners: Cities; County; Brokerage Community</i></p> <ul style="list-style-type: none"> <li>Define districts throughout county's transportation corridor frontage for concentrations of logistics, manufacturing, retail, and mixed use and emphasize connectivity between uses. Districts may include vacant land and/or vacant buildings.</li> <li>Address the issues and opportunities related to industrial land uses and goods movement in the county, and consider forthcoming collaborative strategies that will be identified in the anticipated Goods Movement Plan (2015), prepared by the ACTC, MTC, and STA Technical Advisory Committee.</li> <li>Review circulation plans to ensure proper separation of truck and auto traffic.</li> <li>Ensure efficient transit service to concentrated employment districts.</li> <li>Improve visibility and linkages to downtown districts and TOD areas.</li> <li>Develop required physical improvements identified in the visioning study (Action 1.1a).</li> </ul>	<ul style="list-style-type: none"> <li>Average lease rates and land values by district</li> <li>Property tax revenues by district</li> <li>Sales tax revenues by district</li> </ul>				X	x



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

### Strategy 1.2: More effectively market shovel-ready (first-tier) sites and viable, vacant buildings to cluster-focused users.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.2a. Determine specific real estate and labor needs associated with the range of users in each targeted cluster.</b></p> <p><b>Lead Agency: Solano EDC Economic Development Task Force</b></p> <p><b>Other Partners: Private Sector; Solano EDC</b></p> <ul style="list-style-type: none"> <li>• Establish one working group, composed of county stakeholders, per identified cluster (Energy; Food Chain; Medical and Life Sciences; and Advanced Materials). Ensure that working groups contain representatives from small, medium, and large-sized businesses, as well as a diverse range of businesses contained in each cluster.</li> <li>• Convene working groups to develop a detailed understanding of land, building, and labor needs for each cluster. Land needs should be discussed in terms of parcel size; building needs in terms of building size and type (e.g., Class A office; logistics; warehouse); labor needs in terms of matching employee skills with job requirements.</li> <li>• To the extent possible, utilize existing, vacant buildings in county business parks to ensure they are fully-functioning economic engines.</li> <li>• Leverage current and past research documenting evolving real estate prototypes (e.g., office, R&amp;D, industrial) and land/building needs for each cluster based on companies/trends in county and larger region (e.g., East Bay and Sacramento).</li> </ul> <p><b>(Continued on following page)</b></p>	<ul style="list-style-type: none"> <li>• Sustained participation in working groups</li> <li>• Preparation of briefing packets for each cluster outlining real estate and labor needs by cluster</li> <li>• Absorption of Tier 1 sites</li> <li>• Average lease rates for Tier 1 sites by cluster</li> <li>• Assessed value and property tax revenues for Tier 1 sites by cluster</li> </ul>	X	x	x		



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

**Strategy 1.2: More effectively market shovel-ready (first-tier) sites and viable, vacant buildings to cluster-focused users.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5

**(Continued from previous page)**

**Determine specific real estate and labor needs associated with the range of users in each targeted cluster.**

- Prepare concise briefing packets on land/building and labor needs for each cluster and share with EDC, public ED staff, and brokerage community.
- Establish monitoring process for identifying changes in industry preferences for real estate and labor needs and associated impacts on Tier 1 inventory absorption.



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

### Strategy 1.2: More effectively market shovel-ready (first-tier) sites and viable, vacant buildings to cluster-focused users.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.2b. Cross-reference real estate and labor needs with first-tier land database and vacant land inventory to pinpoint best prospects for locations and related policy/investment actions.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Solano EDC; STA; Planning Directors Group; Brokerage Community; Private Sector</b></p> <ul style="list-style-type: none"> <li>Develop publicly-accessible, web-based GIS database, maintained on frequent basis, that identifies vacant land sites by tier (Tier 1, Tier 2, Tier 3) identified in Moving Solano Forward (MSF) March 2014 Real Estate Analysis. Database should also incorporate existing, vacant buildings in county. Sources for database would include county jurisdictions and private entities (brokerage firms, developers). Also identified in Action 1.3a.</li> <li>Determine compatibility between cluster-based uses and surrounding development.</li> <li>Evaluate connections between first-tier sites/existing, vacant buildings and major transportation facilities.</li> <li>Convene brokerage/development community stakeholders to educate regarding cluster-related land use prospects and potential fit in key areas. For example, the current, tight industrial market in the Oakland-East Bay may provide short-term opportunities for the county, in particular the western portion of the county.</li> <li>Document additional features (signage, landscaping, etc.) to effectively market key areas.</li> </ul>	<ul style="list-style-type: none"> <li>Annual absorption of first-tier sites to targeted cluster users</li> </ul>		<b>X</b>	x	x	x



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

### Strategy 1.3: Prepare second- and third-tier sites to accommodate cluster-focused and other industrial development land needs.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.3a. Identify best-positioned Tier 2 and 3 sites for strategic public investment in infrastructure improvements.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Solano EDC; STA; Planning Directors Group; Brokerage Community; Private Sector</b></p> <ul style="list-style-type: none"> <li>• Develop publicly-accessible GIS database that reflects available Tier 2 and Tier 3 sites. Coordinate with Action 1.2b.</li> <li>• Based on knowledge of clusters' real estate, labor, and agglomeration preferences (i.e., propensity to locate near related or complementary uses).</li> <li>• Address the issues and opportunities related to goods movement in the county, and consider forthcoming collaborative strategies that will be identified in the anticipated Goods Movement Plan (2015), prepared by the ACTC, MTC, and STA Technical Advisory Committee. For example, a preliminary baseline assessment indicates increasing demands on highways and railways for both passenger and freight movement necessitating highway interchange improvements and better usage of existing rail lines. Coordinate with Action 1.4a.</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of specific Tier 2 and Tier 3 sites</li> </ul>	<b>X</b>	x			



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

## Strategy 1.3: Prepare second- and third-tier sites to accommodate cluster-focused and other industrial development land needs.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.3b. Conduct outreach to land owners, brokers, and developers regarding major market opportunities.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Landowners; Brokerage Community; Real Estate Developers</b></p> <ul style="list-style-type: none"> <li>Identify key variables affecting feasibility of development, such as access, zoning, water/wastewater facilities, adjacent uses, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Number of meetings with land owners, brokers, and developers</li> </ul>		X	x		
<p><b>1.3c. Develop Capital Improvement Program for leading Tier 2 and 3 sites.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Planning Directors Group; STA; Private Sector; Solano EDC</b></p> <ul style="list-style-type: none"> <li>Conduct summary level (e.g., fatal flaw) pro forma feasibility analysis to understand ability of private sector to absorb site improvement and infrastructure costs.</li> <li>Determine public investments that will: 1) improve private sector development feasibility to the extent that near-term development becomes probable and 2) facilitate cluster-related development that delivering regional benefit (to multiple jurisdictions).</li> <li>Based on probable benefit to region, evaluate approaches to cost sharing and revenue sharing in the county among multiple jurisdictions (see Strategy 4).</li> </ul>	<ul style="list-style-type: none"> <li>Development of CIP for Tier 2 and 3 sites</li> </ul>			X	x	



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

### Strategy 1.3: Prepare second- and third-tier sites to accommodate cluster-focused and other industrial development land needs.

Implementation Actions	Performance Measures	5-Year Timeline					
		Year 1	Year 2	Year 3	Year 4	Year 5	
<p><b>1.3d. Convene city leadership throughout the county to structure a uniform approach to providing "fast-track" approvals for high priority sites.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Planning Directors Group; Utilities; Solano EDC</b></p> <ul style="list-style-type: none"> <li>• Ensure all such efforts are marketed outside county through brokerage community, EDC, and other efforts.</li> <li>• Explore opportunities to combine transit facilities to connect employment centers and housing to qualify for SB 375-related or other approaches to streamlining the entitlement process.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of uniform process for streamlining entitlement process</li> <li>• Countywide adoption of streamlining entitlement process</li> </ul>		<b>X</b>	x	x		



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

**Strategy 1.4: Obtain funding sources and financing tools to fund infrastructure (transportation, utilities, broadband) to prepare existing, vacant buildings and land for development opportunities.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.4a. Explore and identify Federal, State, and regional financing sources and conduct focused evaluation of each mechanism relative to level and type of funding need.</b></p> <p><b>Lead Agency: City Managers Group</b></p> <p><b>Other Partners: Public Works staff; Solano EDC</b></p> <ul style="list-style-type: none"> <li>Through visioning study and discussions with City Managers, identify a prioritized listing of infrastructure improvements of regional significance as it relates to improving existing business parks or preparing vacant land for cluster-focused commercial growth.</li> <li>In addition to often-utilized land-secured funding sources (e.g., assessment districts; Community Facility Districts), an expanded consideration of funding sources could include:                             <ul style="list-style-type: none"> <li><b>User fees.</b> User fees support financing of public facilities such as roads, parking, and public safety. Surplus revenues (if any) can be allocated to specific in-fill supporting services or facilities.</li> <li><b>Dedicated or expanded Sales or Excise Taxes.</b> Dedicate sales tax increment to in-fill facilities or services. Increased sales or excise taxes (e.g., on specific goods/services) would require voter approval.</li> <li><b>Infrastructure Financing Districts (IFD).</b> IFDs “capture” incremental increases in property tax revenues from future development otherwise accruing to the City’s General Fund which can be used for funding project-related infrastructure. Currently, laws surrounding IFDs are highly restrictive but future legislation may make this a more viable funding option.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Amount of Federal, State, and regional funding secured for countywide infrastructure improvements</li> </ul>	X	x	x	x	x



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

**Strategy 1.4: Obtain funding sources and financing tools to fund infrastructure (transportation, utilities, broadband) to prepare existing, vacant buildings and land for development opportunities.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.4b. Evaluate strategic allocation of pooled jurisdictional revenues.</b></p> <p><i>Lead Agency: City Managers Group</i></p> <p><i>Other Partners: Solano EDC</i></p> <ul style="list-style-type: none"> <li>Create task force to evaluate possible use of STA model to create Joint Powers Authority (JPA) (hereafter referred to as the “Solano Partnership” in this implementation strategy) allowing sharing of property taxes, sales taxes, and other sources for infrastructure projects of countywide significance.</li> <li>The task force would need to determine criteria for “countywide significance” (e.g., improvement induces investment that would otherwise not occur in the near term in the county)</li> <li>The task force would explore the full range of emerging funding sources as part of a comprehensive funding strategy, including the expanded use of IFDs.</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of JPA</li> <li>Sustained participation in JPA</li> <li>Additional performance measures established by JPA depending on course of action</li> </ul>		X	x	x	x



## GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

**Strategy 1.5: Coordinate with developers and landowners to create state-of-the-art business parks and other appropriate sites with key amenities.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.5a. Identify existing business parks and other sites that can be retrofitted as “innovation parks.”<sup>24</sup></b></p> <p><b>Lead Agency: Solano EDC Economic Development Task Force</b></p> <p><b>Other Partners: City Managers Group; Private Sector; Solano EDC</b></p> <ul style="list-style-type: none"> <li>Prepare a profile of assets of existing business parks, including focused evaluations of current and potential competitive position.</li> <li>Conduct case study analysis of successful examples (completed and in progress) where efforts have resulted in improved capture of desired anchor tenants, improved rents, and overall financial performance to the benefit of jurisdictions. Examples include: Hacienda Business Park in Pleasanton; Research Triangle in North Carolina; and emerging concepts such as Davis’ Nishi Gateway Project and Elk Grove’s Southeast Policy Area, both of which will blend public uses, corporate uses, housing, and some retail uses based on current planning direction.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of existing business park profiles</li> <li>Case studies of successful retrofitted business parks</li> </ul>		X			

<sup>24</sup> An “innovation park” is defined as a business park, downtown district, or other area (typically, infill sites) that are converted to a mixed use project containing physical, cultural, commercial, and other amenities for the purpose of attracting innovative companies reliant on a highly skilled and mobilized labor force and creating a notable sense of place.



# GOAL 1: ENHANCE COUNTYWIDE DEVELOPMENT CAPACITY

**Strategy 1.5: Coordinate with developers and landowners to create state-of-the-art business parks and other appropriate sites with key amenities.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>1.5b. Engage in property owner/developer education and outreach to establish interest in a collaborative approach in moving forward with retrofits.</b></p> <p><i>Lead Agency: Solano EDC Economic Development Task Force</i></p> <p><i>Other Partners: City Managers Group; Private Sector; Solano EDC</i></p>	<ul style="list-style-type: none"> <li>Property owner/developer interest in moving forward with retrofit</li> </ul>			X	x	
<p><b>1.5c. Evaluate feasibility for converting or improving selected properties in the county, dependent on property owner/developer interest.</b></p> <p><i>Lead Agency: Solano EDC Economic Development Task Force</i></p> <p><i>Other Partners: City Managers Group; Private Sector; Solano EDC</i></p> <ul style="list-style-type: none"> <li>Evaluate feasibility based on case study research, as well as emerging cluster-related development preferences and preferences of existing anchor tenants.</li> <li>Determine candidate public policies and related investments in key facilities, which may include but is not limited to zoning modifications, circulation improvements, streetscape, sidewalks, vegetation, telecommunications infrastructure, open space/park amenities, etc.</li> <li>Determine applicable funding strategies and techniques for retrofitting properties or support marketing and business development efforts (refer to Action 1.4a).</li> </ul>	<ul style="list-style-type: none"> <li>Feasibility analysis</li> </ul>			X	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.1a. Prepare and execute a countywide, comprehensive five-year organizational strategic plan.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Define organizational priorities and programs, roles and responsibilities of entities involved in economic development (e.g., local jurisdictions, EDC, chambers of commerce, etc.), and effective structure of programs and services considering regional economic development and diversification goals and best practices—consider costs and benefits of developing the plan in the Economic Development Administration (EDA) structure for a Comprehensive Economic Development Strategy (CEDS) to make applicable projects eligible for EDA-related funding.</li> <li>• Ensure that organizational strategic plan defines program structures that effectively emphasize both business retention and expansion as well as business attraction and marketing efforts in order to achieve desired outcomes.</li> <li>• Create annual work plans, identify new tools and investments, and estimate expected outcomes of related economic development efforts based on past results, applicable benchmarks, and case studies.</li> </ul> <p><b>(Continued on following page)</b></p>	<ul style="list-style-type: none"> <li>• Completion of strategic plan</li> <li>• EDA acceptance of strategic plan, if applicable</li> <li>• Execution of strategies according to annual work plans</li> <li>• Creation of formal, ongoing group of economic development entities</li> </ul>	X	x	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5

**(Continued from previous page)**

**Prepare and execute a countywide, comprehensive five-year organizational strategic plan.**

- Develop a formal group of entities involved in executing the strategic plan that meets on an ongoing basis to share information, allow for an idea exchange, provide consistent training, coordinate related efforts, and interact with the “Solano Partnership” (referenced in Action 1.4b).
- Consider both domestic and foreign opportunities for business attraction, project investment, and business expansion efforts.
- While the strategic plan is in the development and fundraising phases, adjust existing programs to implement best practices and performance-based systems.



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.1b. Define resource requirements and develop a value-based fundraising effort.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Develop a funding structure, modeled after the Solano Transportation Authority (STA), Local Area Formation Commission (LAFCO), or other feasible model, and investment prospectus based on the strategic plan and associated annual work plans, potential new tools and resources, and previous and expected outcomes.</li> <li>• Utilize benchmarks for organizational and marketing budgets highlighted in the Economic Development Programs and Services Evaluation memorandum.</li> <li>• Identify a diverse set of private and public sector funding targets, recruit local and regional ambassadors, engage fundraising consultants, and obtain multi-year funding commitments.</li> <li>• Work with the established “Solano Partnership” (referenced in Action 1.4b) and entities involved in executing the strategic plan to allocate funding based on defined criteria and actions with the greatest expected outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>• Diversity of funding base</li> <li>• Multi-year funding commitments</li> <li>• Success rate of secured funding</li> <li>• Integration of new tools and resources</li> </ul>	X				



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

### Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.1c. Target viable clusters and industries in all economic development efforts.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Work with cities in the county on marketing campaigns that support city-specific economic development efforts (e.g., utilizing existing, vacant buildings; catalyzing downtown development).</li> <li>• Create marketing materials outlining resources for business retention and expansion as well as assets and value propositions for business attraction in the identified viable clusters and industries (per the MSF April 2014 Viable Industries and Clusters Analysis).</li> <li>• Develop a system to identify company prospects for business retention and expansion and business attraction purposes using technology tools (e.g., company databases, real estate tracking services, website visits, etc.), media sources, and other best practices.</li> <li>• Build relationships in related business networks (e.g., industry and trade associations, research collaboratives, regional real estate groups, etc.), recruit regional business ambassadors, and develop an ongoing external and existing business outreach schedule (e.g., direct company visits, trade shows, international delegations, etc.) in collaboration with the entities involved in executing the strategic plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Number and cluster diversity of active company prospects</li> <li>• Number of conversations with targeted companies</li> <li>• Number of companies and associated employment and sales at <i>companies retained</i></li> <li>• Number of companies and associated employment and sales of <i>expanding companies</i></li> <li>• Number of companies and associated employment and sales at <i>recruited companies</i></li> </ul>	X	x	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.1: Focus on regional business retention and expansion, as well as business attraction and marketing.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.1d. Integrate a formal look-back review process at the end of the five-year mark.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Adopt a performance-based system across all entities involved in executing the strategic plan that actively measures outcomes and compares actual and expected results—use the information to demonstrate value to funders, reassign roles and responsibilities, and modify programs and services as appropriate.</li> <li>• Seek out stakeholder and funding perceptions of economic development efforts and investments as well as company satisfaction with services provided.</li> <li>• Reassess organizational structure of regional economic development programs and services in the county to define the course of action following the five-year strategic plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Adoption of performance-based system</li> <li>• Actual versus expected outcomes</li> <li>• Results of plan modifications</li> <li>• Completion of formal look-back review</li> </ul>		x	x	x	X



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.2a. Form private sector-weighted industry and cluster coalitions to provide input on workforce demand.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>Recruit a set of committed private sector stakeholders and service providers in each of the identified viable clusters and industries to meet at regular intervals and provide qualitative information on current and future occupation and skill demand.</li> <li>Utilize coalition input and specific members to inform existing and new industry advisory groups for education and training programs in the region and in proximate locations.</li> <li>Make use of the coalition structure to garner input on other regional planning, policy, infrastructure, and investment efforts to avoid over-burdening private sector employers across multiple initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>Sustained private sector participation in coalitions</li> <li>Responses to input from coalitions</li> <li>Number of active industry advisory groups</li> </ul>	X	x	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.2b. Create a standing workforce engagement team consisting of education and training providers and other workforce development entities.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Recruit representatives from education and training providers in the county and proximate locations as well as other workforce development entities (e.g., Workforce Investment Board, labor organizations, veterans groups, etc.) to help develop creative solutions to specific economic development company prospect workforce challenges and respond to demands from the industry and cluster coalitions.</li> <li>• Build a planning process for the team to help develop short- and long-term strategies to address identified gaps in the workforce supply based on labor market intelligence and information from the industry and cluster coalitions—consider distinct training programs, educational institutions, satellite campuses, and other providers that can enhance workforce quality in general as well as specific skills.</li> <li>• Leverage alumni and past client networks of team member entities to support economic development and regional marketing efforts and further understand perceptions of employment opportunities and regional commute patterns.</li> </ul>	<ul style="list-style-type: none"> <li>• Sustained provider participation in workforce engagement team</li> <li>• Solutions to company prospect workforce challenges and company satisfaction with response</li> <li>• Extent of workforce supply gaps</li> <li>• In- and out-commute patterns</li> </ul>	X	x	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.2c. Develop a system to provide information on employment opportunities and career pathways.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Work with educational institutions (e.g., California Community Colleges Center of Excellence, UC Davis, Sonoma State, etc.) and engage qualified consultants to help develop quantitative workforce supply and demand studies validated by employers and published research on broader labor market trends.</li> <li>• Build and promote an online portal that provides regularly-updated labor market intelligence specific to the Solano county region including workforce demand in industries and clusters (new and replacement needs); education and training programs connected to workforce demand; career pathways and related education, skills, and wages; and job openings among regional employers.</li> <li>• Showcase a rotating set of specific career pathways, related occupations, and employers across the identified viable industries and clusters using digital media as well as direct outreach to students, education and training providers, resident workers in transition, and other appropriate groups.</li> </ul> <p><b>(Continued on following page)</b></p>	<ul style="list-style-type: none"> <li>• Creation and regular updates of online portal</li> <li>• Online portal visits</li> <li>• Career pathway digital media impressions</li> <li>• Amount of direct career pathway outreach</li> <li>• Enrollment in education and training programs aligned with identified viable industries and clusters</li> </ul>		X	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

**Strategy 2.2: Focus on aligning workforce skills with the skill set demand of cluster-related employers in county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>(Continued from previous page)</b></p> <p><b>Develop a system to provide information on employment opportunities and career pathways.</b></p> <ul style="list-style-type: none"> <li>• Estimate resource requirements for continued maintenance and updates of workforce intelligence information system and develop a supportive funding structure.</li> </ul>						



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

### Strategy 2.3: Develop a messaging strategy for economic development purposes.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.3a. Develop an external brand based on the business-oriented messaging and geographic orientation.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Form a regional marketing committee and engage marketing consultants to build business- and talent-oriented messaging for the county highlighting local, regional, and state incentives; focusing on identified assets, strengths, and opportunities; and outlining quality of life and ease of doing business attributes.</li> <li>• Ensure that messaging is built for an external audience, is developed from a place marketing perspective, and includes geographic orientation along with state, regional, and local context.</li> <li>• Incorporate findings from the “Solano Partnership” I-80 corridor visioning study (referenced in Action 1.4b) and coordinate with other organizational, business investment, workforce, and tourism marketing efforts.</li> <li>• Leverage Moving Solano Forward (MSF) April 2014 Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis for marketing and development purposes.</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of messaging and external brand</li> <li>• Integration of similar messaging in other marketing efforts</li> </ul>	<p><b>X</b></p>				



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

### Strategy 2.3: Develop a messaging strategy for economic development purposes.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.3b. Integrate contemporary marketing tools and tactics in ED efforts.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>Create a new, dynamic regional web site with content and tools (e.g., comprehensive property search, data downloads, project tracking, etc.) aimed at business, site selectors, corporate real estate executives, and talent and build a strong, active social media presence across all relevant venues (e.g., LinkedIn, Facebook, Twitter, YouTube, etc.).</li> <li>Form relationships with local, state, and national media sources to encourage positive story placement and consider advertising opportunities in publications that reach targeted audiences.</li> <li>Coordinate with tourism organizations and other regional entities to host virtual and in-person familiarization tours that integrate representatives of targeted audiences.</li> </ul>	<ul style="list-style-type: none"> <li>Development of new web site and integration of tools</li> <li>Number and geographic distribution of media relationships</li> <li>Integration of social media and frequency of updates</li> <li>Number of and participation in familiarization tours</li> </ul>	<b>X</b>	x	x	x	x



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

### Strategy 2.3: Develop a messaging strategy for economic development purposes.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.3c. Execute distinct audience-specific marketing campaigns (in addition to efforts targeting viable industries and clusters in Action 2.1c).</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>Recruit digital and in-person marketing ambassadors to help develop campaigns and reach decision makers in the audiences such as corporate real estate in Northern California, expanding companies in the SF Bay Area, and residents and businesses in Solano not familiar with economic development outcomes.</li> <li>Develop a talent retention and attraction campaign that includes tailored information and tactics (e.g., networking, labor market intelligence, quality of place, etc.) and is executed in collaboration with educational institutions and workforce development entities.</li> <li>Maintain an active list of site selectors that have completed projects in California or work in the targeted viable industries and clusters and invest in tailored campaigns that increase awareness of the county and generate direct conversations.</li> </ul>	<ul style="list-style-type: none"> <li>Redistribution of marketing materials, content, and social media updates through ambassadors</li> <li>Development of talent campaign and execution of included tactics</li> <li>Number of site selectors in database and amount of quality impressions</li> </ul>	X	x	x	x	



## GOAL 2: STRENGTHEN REGIONAL ECONOMIC DEVELOPMENT AND WORKFORCE DEVELOPMENT PROGRAMS AND SERVICES

### Strategy 2.3: Develop a messaging strategy for economic development purposes.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>2.3d. Build a structure to track the outcomes of the messaging strategy.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: EDC stakeholders (Cities, County, STA, Private Sector, Chambers of Commerce, Educational Institutions, WIB, etc.)</b></p> <ul style="list-style-type: none"> <li>• Ensure that all marketing efforts and investments have associated general and audience-specific measurement methods and expected outcomes that are based on best practices and appropriate benchmarks.</li> <li>• Actively track marketing measurements through both internal and external sources—use the information to demonstrate value to funders and modify targets and tactics, as necessary.</li> <li>• Conduct an awareness study following the conclusion of multi-year general and audience-specific marketing campaigns to test value propositions with targeted audiences and identify ways to increase awareness and perceptions of the region and refine messaging to elicit more positive responses from specific audiences.</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of measurement structure and expected outcomes</li> <li>• Number of web site visits and use of integrated tools</li> <li>• Number of impressions (purchased and earned) in general and in targeted audiences</li> <li>• Number of resulting conversations regarding business expansion and location opportunities</li> <li>• Extent of awareness and positive perceptions</li> </ul>	<b>X</b>	x	x	<b>X</b>	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

## Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.1a. Connect public and private schools and communities by linking local businesses, non-profits, and community organizations with schools through formal partnerships.</b></p> <p><b>Lead Agency: Solano County Superintendents Group</b></p> <p><b>Other Partners: Cities; County; Universities; Colleges; Chambers of Commerce; Private Sector; WIB; 4Cs</b></p> <ul style="list-style-type: none"> <li>Identify and prioritize a listing of private businesses, non-profits, and community organizations, focusing on those organizations that are aligned with key county clusters.</li> <li>Review existing partnerships currently in place between educational institutions and local businesses, non-profits, and community organizations (e.g., partnership between Touro University and County Health Department; partnership between Solano Community College and Genentech) to identify best practices.</li> <li>Recruit top organizations from prioritized listing to establish formal partnerships with one or more schools in the county. Partnerships may include volunteering or mentoring in a school, providing technology assistance, expertise, and internships, helping to organize a school-based community event, providing grants or scholarships to promote student achievement in specific subjects aligned with the organization; supporting work ready certificate programs; or other activities that strengthen ties between schools, communities, and local businesses.</li> </ul>	<ul style="list-style-type: none"> <li>Number of partnerships established</li> <li>Number of students participating in partnership-related programs</li> </ul>	X	x	x	x	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

## Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.1b. Invest in technological infrastructure in schools. Technological infrastructure includes people, processes, learning resources, and policies and sustainable models for continuous improvement in addition to broadband connectivity, servers, software, management systems, and administrative tools.</b></p> <p><b>Lead Agency: Solano County Superintendents Group</b></p> <p><b>Other Partners: Cities; County; Universities; Colleges</b></p> <ul style="list-style-type: none"> <li>Explore funding opportunities for investing in a broadband network that provides adequate wireless coverage to support simultaneous use by students and educators in each school, phased by type of school.</li> <li>Explore funding opportunities to provide access devices for students. Funding levels will dictate the scope of the program.</li> <li>Leverage open educational resources (e.g., podcasts; digital libraries; textbooks; games; higher educational courses), and fee-based technology resources, as funding permits, in regular school-year curricula as well as after-school and summer school programs.</li> </ul>	<ul style="list-style-type: none"> <li>Number of schools with adequate broadband capacity</li> <li>Number of students with access devices</li> <li>Number and type of learning resources integrated into curricula or otherwise available to students</li> </ul>		X	x	x	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

## Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.1c. Increase opportunities for arts, language, music, Science, Technology, Engineering, and Mathematics (STEM), and Career Technical Education (CTE), and preparation for employment opportunities in identified county clusters.</b></p> <p><b>Lead Agency: Solano County Superintendents Group</b></p> <p><b>Other Partners: Cities; County; Universities; Colleges; WIB</b></p> <ul style="list-style-type: none"> <li>There are numerous existing programs in select schools in the county. Invest in continued operation and expansion of the following programs that support STEM and cluster-related education: Explorit (STEM-related after-school program currently at 7 middle schools); Manufacturing class, Build a Bridge Competition, and VEX Robotics Competition (STEM-related classes and programs at Vanden High School); High School Teacher Intern Program (grants provided by the Solano Community College that introduce teachers to current trends in workplaces, with a focus on biotechnology, utilities, and water/wastewater management industries); Vacaville “A Day in the Life” middle school program; Middle School 5-Day Career Exploration program.</li> <li>Identify existing CTE programs in the county and identify where gaps and demand may exist for additional programs as it relates to supporting cluster-focused knowledge and skills.</li> </ul>	<ul style="list-style-type: none"> <li>Number and jurisdictional/school type distribution of cluster-oriented programs by cluster category</li> </ul>	X	x	x	x	x



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

### Strategy 3.1: Strengthen K-12 schools and linkages to higher education in the county.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.1d. Explore supplemental educational programs that support improved student achievement.</b></p> <p><b>Lead Agency: Solano County Superintendents Group</b></p> <p><b>Other Partners: Cities; County; Universities; Colleges; WIB</b></p> <ul style="list-style-type: none"> <li>Invest in early childhood education. Explore the option of providing publicly-funded preschool for county residents. In addition, explore grant funding to expand Head Start, or other similar programs.</li> <li>Expand summer school and after-school programs, which provide additional learning opportunities and a safe environment for completing homework.</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate cost of program per student <u>and</u> student performance (e.g., test scores; grades; attendance; drop-out rates) to determine efficacy of programs</li> </ul>		X	x	x	x



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

### Strategy 3.2: Improve countywide crime rates and sense of public safety.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.2a. Form countywide crime rate improvement and prevention task force.</b></p> <p><b>Lead Agency: Police Chiefs Association</b></p> <p><b>Other Partners: Judges; Community Corrections Partnership; City Managers Group; Planning Directors Group; STA; 4Cs</b></p> <ul style="list-style-type: none"> <li>Leverage existing Police Chiefs Association, other crime prevention organizations, and public- and private-sector stakeholders, representing all county jurisdictions and wide variety of social and governmental systems, to identify key safety concerns in county.</li> <li>Fully identify and define each key safety concern; determine causes and contributing factors; review current response(s) to determine strengths and limitations; explore new/alternative response(s) based on best-practice research; design and implement a new response strategy; measure results specific to each key safety concern.</li> <li>Ensure jurisdiction general plans reinforce implementation actions.</li> <li>Promote and facilitate, within legal constraints, data sharing among various government departments so that the various departments have the information necessary to work effectively with one another.</li> <li>Invest in countywide data collection and analysis tools necessary to identify and track the key safety concerns identified by the task force.</li> <li>Develop outreach strategy to convey public safety successes to residents and businesses in and outside of the county.</li> </ul>	<ul style="list-style-type: none"> <li>Specific performance measures will be determined based on key safety concerns, and should include the Federal Bureau of Investigation's (FBI) Uniform Crime Reports variables and other relevant benchmarks that measure the community's sense of safety</li> <li>Sustained task force member participation</li> </ul>	X	x	x	x	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

## Strategy 3.2: Improve countywide crime rates and sense of public safety.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.2b. Identify land use planning strategies that help improve countywide crime rates and sense of public safety.</b></p> <p><b>Lead Agency: Police Chiefs Association</b></p> <p><b>Other Partners: Judges; Community Corrections Partnership; City Managers Group; Planning Directors Group; STA; 4Cs</b></p> <ul style="list-style-type: none"> <li>Through housing element process (Action 3.5a), downtown strategic plan (Action 3.4a), or infill site selection process (Action 3.4b), identify strategic areas in the county that could benefit from an increased residential population who provide non-business hours “eyes on the street” and 24-hour activity, thereby increasing sense of public safety.</li> <li>Encourage and support planning new development and retrofitting existing development (including public parks and open space) in the county with Crime Prevention Through Environmental Design (CPTED) principles.</li> </ul>	<ul style="list-style-type: none"> <li>Housing units in “strategic areas”</li> <li>Number of projects incorporating CPTED principles.</li> </ul>			X	x	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

**Strategy 3.3: Encourage and expand recreational, cultural, and artistic amenities that celebrate the county and attract visitors from in and outside the county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.3a. Prepare a countywide tourism master plan.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: Convention &amp; Tourism Bureaus; All BIDs; Economic Development Staff; Chambers of Commerce</b></p> <ul style="list-style-type: none"> <li>Work with jurisdictions, chambers of commerce, tourism agencies, representatives from the recreational, cultural, and artistic communities, and engaged qualified consultants to prepare a tourism master plan. The tourism master plan should build on existing plans and tourism-related marketing campaigns.</li> <li>Prepare a current inventory of recreational, cultural, and artistic amenities (including physical structures and programming) in the county, and analyze county resident demographics to understand the historic, cultural, economic, and social context and build an essential foundation for developing a sense of place in the county.</li> <li>Prepare a plan that identifies and prioritizes expanding amenities and attaining financial resources for implementation.</li> <li>Explore the development of a countywide tourism web site that promotes physical and programmed amenities in the county.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of recreational, cultural, and artistic amenities inventory, cross-referenced by various metrics (jurisdiction, type of amenity, etc.)</li> <li>Development of a tourism master plan</li> <li>Implementation of master plan goals and objectives</li> </ul>		X	x		



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

**Strategy 3.3: Encourage and expand recreational, cultural, and artistic amenities that celebrate the county and attract visitors from in and outside the county.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.3b. Establish countywide benchmarks for tracking expansion of recreational, cultural, and artistic amenities.</b></p> <p><b>Lead Agency: Solano EDC</b></p> <p><b>Other Partners: Convention &amp; Tourism Bureaus; All BIDs; Economic Development Staff; Chambers of Commerce</b></p> <ul style="list-style-type: none"> <li>Concurrent with preparation of tourism master plan, work with jurisdictions, chambers of commerce, tourism agencies, representatives from the recreational, cultural, and artistic communities, and engaged qualified consultants to establish a set of performance measures to track progress in expanding county amenities. Examples are provided as part of performance measures, but specific benchmarks will be finalized during master plan process.</li> </ul>	<ul style="list-style-type: none"> <li>Economic impacts of recreational, cultural, and artistic amenities</li> <li>Public- and private-sector funding allocated/secured for recreational, cultural, and artistic amenities, by sector</li> <li>Annual attendance and amount spent at key amenities and events, by demographic characteristic (age, gender, race/ethnicity, city/county of residence)</li> </ul>		X	x	x	x



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

**Strategy 3.4: Develop sites in the county to create a unique sense of place and promote the county as a desirable place to live and work.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.4a. Prepare a downtown strategic plan for each of the county’s jurisdictions.</b></p> <p><i>Lead Agency: Planning Directors Group</i></p> <p><i>Other Partners: NA</i></p> <ul style="list-style-type: none"> <li>For jurisdictions with a downtown master plan, identify next steps that could be pursued to achieve vision and objectives of master plan. Next steps may include securing funding, acquiring land, facilitating improvements to prepare catalyst sites for private investment, etc.</li> <li>For jurisdictions without a downtown master plan, recruit a group of public and private stakeholders to spearhead preparation of a downtown specific plan. Establish a vision for the downtown. The vision should be focused on creating a distinctive place that embodies a character, look, flavor, and heritage not found in other locations, especially in the surrounding region.</li> <li>Address elements that will create incremental changes intended to make downtown more inviting, including complete street improvements; design guidelines; inclusion of residential and other uses (e.g., office, entertainment, park/open space) not currently represented or underrepresented; wayfinding signage; pedestrian-friendly urban design; public safety.</li> </ul>	<ul style="list-style-type: none"> <li>Assessed value of properties in downtown</li> <li>Sales tax revenues of businesses downtown</li> <li>Vacancy rates</li> <li>Number of businesses; new businesses; residential units; new residential units</li> </ul>			X	x	x



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

**Strategy 3.4: Develop sites in the county to create a unique sense of place and promote the county as a desirable place to live and work.**

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.4b. Identify other infill sites in cities (vacant land or buildings) outside of downtown strategic plan boundary, as appropriate, that could be used as an opportunity to create a unique sense of place.</b></p> <p><i>Lead Agency: Planning Directors Group</i></p> <p><i>Other Partners: NA</i></p> <ul style="list-style-type: none"> <li>• As part of the downtown strategic plan process (Action 3.4a), preparation of a tourism master plan (Action 3.3a), or as a separate endeavor, identify strategically-located infill sites with near-term development potential that may be used to achieve the goal of bolstering the county’s sense of place.</li> </ul>	<ul style="list-style-type: none"> <li>• Performance measures to be determined based on specific implementation approach</li> </ul>			X	x	x



# GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

## Strategy 3.5: Encourage the development of a wide variety of housing types.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.5a. Ensure the Housing Element of each city’s General Plan accommodates an appropriate mix of different housing types in locations throughout each city (downtowns, near employment centers, close to transit).</b></p> <p><i>Lead Agency: Planning Directors Group</i></p> <p><i>Other Partners: NA</i></p>	<ul style="list-style-type: none"> <li>Preparation of a current Housing Elements for each county jurisdiction</li> </ul>	x	x	x	x	x
<p><b>3.5b. Direct public funding towards acquiring, assembling, and preparing specific sites to accommodate desired residential development.</b></p> <p><i>Lead Agency: City Managers Group</i></p> <p><i>Other Partners: Planning Directors Group</i></p> <ul style="list-style-type: none"> <li>Identify specific sites to target for desired residential development.</li> <li>Facilitate site acquisition through techniques such as inventorying available parcels or marketing specific development opportunities, or acquiring parcels through outright purchase.</li> <li>Utilize public investment to upgrade or fill gaps in existing infrastructure to prepare shovel-ready sites to attract private investment in desired residential development.</li> </ul>	<ul style="list-style-type: none"> <li>Amount of public funding directed towards preparing sites</li> <li>Number of sites prepared</li> </ul>	X	x	x	x	x



## GOAL 3: IMPROVE QUALITY OF LIFE FOR COUNTY RESIDENTS AND BUSINESSES

### Strategy 3.5: Encourage the development of a wide variety of housing types.

Implementation Actions	Performance Measures	5-Year Timeline				
		Year 1	Year 2	Year 3	Year 4	Year 5
<p><b>3.5c. Prepare inventory of Federal, State, and regional funding sources to assist in constructing desired residential development.</b></p> <p><i>Lead Agency: City Managers Group</i></p> <p><i>Other Partners: Public Works Staff; Solano EDC</i></p> <ul style="list-style-type: none"> <li>In conjunction with Action 1.4a, prepare an inventory of Federal, State, and regional funding sources that can be used to assemble parcels, construct infrastructure, or otherwise support the vertical construction of desired residential development.</li> </ul>	<ul style="list-style-type: none"> <li>Preparation of an inventory of available funding options and qualified expenditures.</li> </ul>	X	x	x	x	x
<p><b>3.5d. Create some type of residential development incentive program that provides incentives to encourage desired residential development.</b></p> <p><i>Lead Agency: City Managers Group</i></p> <p><i>Other Partners: Planning Directors Group</i></p> <ul style="list-style-type: none"> <li>Explore development incentives that could be used to attract desired residential development. Such incentives include: development impact fee exemptions, reductions, or payment programs; utility or other tax abatements; density bonuses. Specific incentive programs will be determined by individual jurisdictions and specific development opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of incentive programs</li> <li>Residential housing units constructed through incentive program</li> </ul>	X	x	x	x	x

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## TECHNICAL ANALYSIS APPENDICES:

Memorandum I: Demographic and Economic Profile and Real Estate Analysis

Memorandum II: Regional Economic Development Ecosystem Analysis

Memorandum III: County Strengths, Weaknesses, Opportunities, and Threats Analysis

Memorandum IV: Viable Industry Sectors and Clusters Analysis

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## MEMORANDUM I: Demographic and Economic Profile and Real Estate Analysis

*Includes the following memorandum appendices:*

*Appendix A: Demographic and Economic Profile*

*Appendix B: Market Performance Indicators*

*Appendix C: Vacant Land Supply*

*Appendix D: Real Estate Land Demand Analysis*

*Appendix E: Interviews*

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## **MEMORANDUM**

To: County of Solano  
From: Moving SOLANO Forward Project Team  
Subject: Updated Solano County Demographic and Economic Profile and Real Estate Analysis; EPS #132024  
Date: June 12, 2014

*The Economics of Land Use*



### **Introduction and Overview**

This memorandum is the initial key input for the Moving SOLANO Forward (MSF) project (Project), an effort to develop a countywide strategic approach to further diversify the economic base of Solano County (county).<sup>1</sup> This memorandum, as well as three forthcoming memoranda, will serve as contributions to the Economic Diversification Study Report (Study Report), which will be prepared and presented to stakeholders in June 2014. Note, this memorandum was initially disseminated to MSF stakeholders in March 2014 and subsequently updated in June 2014 to reflect updated data related to the real estate supply in the county.

The keys to identifying economic diversification opportunities and priorities include understanding the demographic and economic context of the county and understanding how available land assets can meet the growth demands of targeted industry sectors. To inform this understanding, the Project Team conducted two key technical analyses: a detailed **demographic and economic profile** of the county, and a **real estate supply and demand analysis**.

This memorandum summarizes key findings from the demographic and economic profile and the real estate supply and demand analysis and includes the detailed profile and real estate analysis as appendices. The purpose of this memorandum is to present the reader with contextual information regarding demographic and economic trends and projections and a synthesis of existing, vacant land supply and projected real estate demand.

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<sup>1</sup> In this report, Solano County and the abbreviation "county" refer to the geographic boundaries of the county and all cities contained therein. The political and administrative entity will be referred to as "County of Solano." Any reference to other counties will include the specific county name.

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This document is intended to present foundational information regarding the county's economy. As a reference document that will support conclusions made in the Study Report, it is intended that stakeholders reading this information will relate the economic and land supply trends disclosed here to their daily experiences conducting business in the county.

The baseline information contained in this document is being used to inform the initial Strengths, Weaknesses, Opportunities, and Threats (SWOT) evaluation and cluster analysis. With these latter two elements in place, the Project Team will be positioned to begin developing public policies and other strategies intended to diversify and strengthen the county's overall economy.

While not intended to be a final identification of trends and issues, the analysis contained in this memorandum does have several possible interpretations that will be discussed as more specific evaluations and discussions commence over the balance of the Project. These initial findings are described below:

- The county is at a key juncture in its evolution. Over the past decade, population growth has been slower than in neighboring regions, and job losses have been more acute. New approaches to economic growth and diversification are necessary.
- Despite significant impacts endured during the Great Recession, projections are optimistic regarding future job prospects, buoyed by the county's existing and projected labor force and land supply. As the county regains its footing after the recession, the next phase of commercial growth is likely to be instrumental in setting the tone for future economic growth and development.
- As the county considers its options for economic growth and diversification, it has an opportunity to diversify from its traditional stronghold as an Interstate 80 (I-80)-driven logistics/warehousing corridor. As options for capturing a greater volume of value-added activities continue to materialize, the county will need to confront and remediate some of its documented socio-economic challenges relating to income and educational attainment, work to improve its overall image as a high quality-of-life locale, and ensure a cohesive approach to funding and implementing economic development activities.
- One major advantage the county has is a relatively low cost of land, affordable lease rates, and proven success leveraging its community college system to supply advanced manufacturers and other skill-intensive firms with effective labor.
- Because of the prominence of small businesses with fewer than 20 employees located in the county, the county should focus economic development programs and services on supporting this classification of businesses by understanding their specific challenges and opportunities related to doing business in the county.
- The results of a recent cost-of-doing-business survey, which accounts for taxes, fees, and economic development programs as part of the underlying cost comparisons, demonstrated that communities in the county generally have a regional and broader advantage in terms of the cost of doing business. However, a low cost of doing business is not sufficient without a focus to create a high quality of life for residents. A strategy to create value for residents, while continuing to manage costs, will assist in retaining and attracting new employers to the county.

- The county's land supply is a major competitive advantage, with substantial "shovel-ready" land assets positioned in critical locations throughout many parts of the county. A preliminary comparison of shovel-ready opportunity sites and demand for future real estate development indicates the potential need to review zoning designations to ensure demand for industrial and Research and Development (R&D)/Flex space can be accommodated.
- The county should focus on several actions to elevate the county's position and fuel growth in the economy. Based on conversations with local real estate brokers, the county should focus on these actions to spur economic development:
  - Continue to improve the county's transportation infrastructure.
  - Invest in broadband connectivity.
  - Improve the county's schools and post-secondary educational institutions.
  - Incentivize the development community and specific tenants to focus on developing intramarket sectors for the wine and warehousing industries.
- Finally, the county should focus on facilitating development in areas that are in a stronger position to support future real estate demand. Areas in the county best positioned to accommodate new employment growth include the shovel-ready land in the cities of Fairfield and Vacaville. To that end, the City of Fairfield, with excellent proximity to Napa Valley, has become a prime location for attracting additional wine-related manufacturing growth. The City of Vacaville has continued to define itself as a viable life science locale by attracting, retaining, and expanding major businesses, such as Genentech and Alza, and may be able to attract additional biomedical and pharmaceutical companies with increased employment growth.

The remainder of this memorandum includes key findings from the two technical analyses: the **demographic and economic profile** of the county and a **real estate supply and demand analysis**. Following the key findings, this memorandum also contains the following detailed technical appendices:

- **Appendix A:** Detailed Demographic and Economic Profile
- **Appendix B:** County Market Performance Indicators
- **Appendix C:** Real Estate Supply Inventory
- **Appendix D:** Real Estate Demand Analysis
- **Appendix E:** Interviews Conducted for Real Estate Assessment

# DEMOGRAPHIC AND ECONOMIC PROFILE

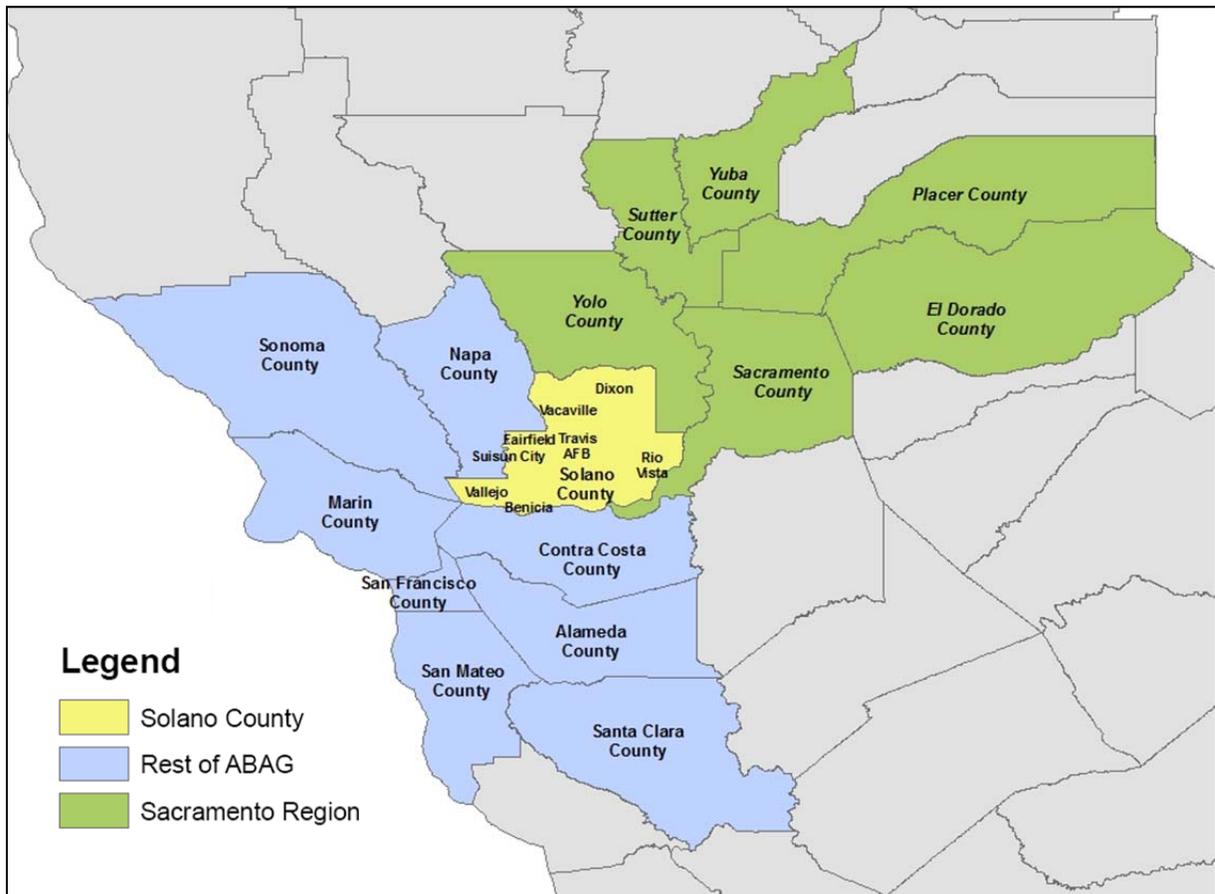
The county demographic and economic profile compiled for this study examines demographic and economic trends in the county that occurred over the last decade (i.e., 2003–2013, except where noted), as well as population and employment projections through 2040.

For the purpose of comparing county data, the profile includes data, where available, for the State of California (State) and the following neighboring regions:

- The counties contained in the Association of Bay Area Governments’ (ABAG) service area net of the county (referred to as the “Rest of ABAG”).
- The counties contained in the Sacramento Area Council of Governments’ (SACOG) service area (referred to as the “Sacramento Region”).

Collectively, the State and surrounding regions are referred to as the “comparison geographies.” Refer to **Map 1-1** for an illustration of the neighboring regions evaluated in this profile.

**Map 1-1**  
**Solano County and Surrounding Regions Map**



Source: Center for Strategic Economic Research, October 2013

## Key Demographic and Economic Findings

Demographic and economic findings are based on the detailed Demographic and Economic Profile provided in **Appendix A**. Each key finding contains an italicized reference to relevant figures and pages from the Demographic and Economic Profile.

### Population and Employment (Job) Trends

- **The county experienced a lower rate of population growth and a higher rate of job losses over the last decade relative to the comparison geographies.** The county's current population of 418,000 represents an increase of 10,000 residents since 2003, an average annual growth rate of 0.3 percent. The growth rate in total over the last decade (almost 3 percent) was substantially lower than the more populous neighboring regions, Rest of ABAG (nearly 7 percent), and Sacramento Region (more than 13 percent), as well as the State (8 percent). In addition, there are approximately 121,000 jobs in the county as of the end of 2012, down from a peak of 132,000 in 2006, and 2,600 fewer jobs than a decade ago. While the Rest of ABAG and the State also witnessed total declines in jobs over the same period (-0.9 percent and -1.1 percent, respectively), the rate of job losses in the county was greater (-2.1 percent). The Sacramento Region witnessed a nominal positive growth rate in employment over the last decade (0.9 percent). *Figure 3, pg. 3; Figure 32, pg. 33.*
- **The smallest city in the county experienced the highest population growth, while two of the county's largest cities experienced population declines over the last decade.** Fueled primarily by Shea Homes' active-adult community, Trilogy, Rio Vista experienced a 40-percent increase in their residential population since 2003. It should be noted that a 40-percent growth rate for Rio Vista represents an addition of about 2,200 residents over 10 years (about 20 percent of county growth). Two of the county's largest cities—Vallejo and Vacaville—experienced population declines over the last 10 years.<sup>2</sup> *Figure 5, pg. 5.*
- **Approximately 2 percent of the county's current population comprises military and civil-service personnel stationed at Travis Air Force Base (TAFB), and 4 percent of the county's current population comprises military and civil-service retirees.** The county's current population of 418,000 includes an institutional population, which is defined as those residing in group quarters such as in the military, students, and prisoners. TAFB's 2012 Economic Impact Analysis reports that TAFB's workforce consists of 13,409 military and civilian employees. Of this total, nearly 8,200 employees (2 percent of the county's total population) are estimated to live in the local area. In addition, almost 16,000 military and civil-service retirees (4 percent of the county's total population) reside in the county. *No Figure Cited, pg. 2.*

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<sup>2</sup> Vallejo has suffered greatly from some of the highest foreclosure rates in the country, which may have decreased its desirability as a place of residence and had an effect on population growth. Vacaville has a large prison population and, similar to other cities with prison facilities, saw a drop in population after the State made efforts to reduce inmates and shift them to county-run facilities. ("Bay Area growth keys California's population boost," *The Reporter*, May 2, 2013, [http://www.thereporter.com/ci\\_23154125/bay-area-growth-keys-californias-population-boost.](http://www.thereporter.com/ci_23154125/bay-area-growth-keys-californias-population-boost.))

## Population and Employment Forecasts

- **The county is projected to experience a stronger growth rate relative to the previous decade and relative to the projected growth rates of the Rest of ABAG and the State.** Although the county experienced minimal growth over the previous decade, the State Department of Finance projects the county will grow by nearly 10 percent, adding more than 40,000 residents by 2023. In contrast, the Rest of ABAG is projected to grow by nearly 5 percent over the next decade. The State is anticipated to nearly match the county's growth rate (almost 10 percent); the Sacramento Region is projected to eclipse the county's growth rate with a total growth rate of nearly 12 percent over the next decade.

According to other data sources that publish longer term growth outlooks, the county's population is projected to be between 494,000 and 551,000 by 2040, representing a percentage increase of 21 to 32 percent.<sup>3</sup> *Figure 4, pg. 4.*

- **Similar to population growth, the county is projected to experience strong employment growth relative to the previous decade and relative to the projected growth rate of the State.** After experiencing declines in employment over the previous decade, the county is projected to experience employment growth of nearly 20 percent by 2022, according to Moody's Analytics. In contrast, the State is projected to experience employment growth of nearly 13 percent.

According to longer term growth outlooks, the county's employment force is projected to be between 166,000 to 241,000 by 2040, representing a percentage increase of 34 to 41 percent.<sup>4 5</sup> *Figure 33, pg. 34; Figure 37, pg. 39.*

## Income and Education

- **Per capita and median income and educational attainment levels in the county are substantially lower than the Rest of ABAG.** County residents' average per capita income of about \$29,000 is 25 percent lower (\$7,400) and the median household income of \$66,000 is 13 percent lower (\$8,500), relative to the Rest of ABAG residents' incomes. However, it should be noted that per capita and median income in the county are greater than those metrics in the Sacramento Region and the State by a small margin. As a corollary to income,

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<sup>3</sup> Data sources used to evaluate population growth projections include Woods & Poole Economics, ABAG, California Department of Transportation (CalTrans), and the ABAG Sustainable Communities Strategy (SCS) forecast.

<sup>4</sup> Data sources used to evaluate employment growth projections include Moody's Analytics, Woods & Poole Economics, ABAG, and CalTrans.

<sup>5</sup> It is worth noting that the real estate demand analysis relies on employment projections over the next 20 years (2013-2033), falling between Moody's Analytics' 2022 projections and 2040 sources (Moody's, Woods & Poole, ABAG, and CalTrans) that bracket employment growth, as shown in the demographic and economic profile. The real estate demand analysis employs three land use demand scenarios to bracket low-to-high ranges of demand (two scenarios are based on employment projections and one scenario is based on historical absorption for commercial office and industrial lands). These land use demand scenarios and the resulting real estate demand analysis are described in later sections of this memorandum.

significantly fewer county residents have attained degrees beyond high school. About 35 percent of county residents age 25 and older have attained at least an Associate's degree, compared with 50 percent of residents in the Rest of ABAG, 39 percent of residents in the Sacramento Region, and 38 percent of residents in the State. A notable exception, Benicia's per capita and median household incomes are higher than the county average by 44 percent and 39 percent, respectively. Moreover, 50 percent of Benicia's residents age 25 and older have attained at least an Associate's degree, consistent with the Rest of ABAG. *Figure 7, pg. 7; Figure 8, pg. 8; Figure 13, pg. 13; Figure 14, pg. 14.*

### Cost of Living

- **One of the county's strengths is providing a lower cost of living and a greater percentage of affordable housing relative to the comparison geographies.** With the exception of Benicia, the cities in the county have a substantially lower overall cost of living relative to key cities in the comparison geographies (e.g., Oakland, San Francisco, San Jose, and Roseville) and about the same cost of living as the City of Sacramento. Vallejo, Suisun City, and Rio Vista have the lowest overall cost of living in the county. In addition to Benicia, Vacaville, Dixon, and Fairfield have the highest cost of living of cities in the county, which is solely attributable to higher housing costs. Nevertheless, nearly three-quarters of all housing in the county (74 percent) is affordable to families earning the county median income. In comparison, 66 percent of housing in the Sacramento Region, 37 percent of housing in the Rest of ABAG, and 47 percent of housing in the State is affordable to families earning the median income. *Figure 9, pg. 9.*

### Labor Force

- **In 2011, the county had a labor force totaling nearly 182,000 employed residents, with approximately 4 percent comprising TAFB personnel.** Based on U.S. Census data, the county had a 2011 labor force of almost 182,000 people. The county's labor force includes civilian labor force only (and excludes military personnel). According to TAFB's 2012 Economic Impact Analysis, the base has a workforce totaling about 13,400, with approximately 10,100 military personnel. Including the additional military personnel, the county contains a labor force of approximately 192,000, with employed residents of nearly 8,200 comprising about 4 percent of the county's total labor force. *No Figure Cited, pg. 18.*

### Occupations and Industries of Employed Residents

- **While the top three occupations of employed residents in the county are mirrored in comparison geographies, notable differences in remaining occupations among the geographies indicate skill-set strengths and gaps.** The top occupations shared by the county and all comparison geographies include (1) office and administrative support; (2) sales and related; and (3) management. The following table illustrates higher and lower percentages of employed residents in specific occupations relative to the comparison geographies. *Figure 18, pg. 19.*

Top Occupations of Employed Residents	Percentage of Employed Residents' Occupations in County Relative to Comparison Geographies	
	Higher Percentage	Lower Percentage
Office & Admin. Support	Construction & Extraction	Management
Sales & Related	Transportation & Material Moving	Sales & Related
Management	Healthcare Practitioners	Education, Training & Library
	Production	Business & Financial Operations
	Protective Service	Computer & Mathematical
	Installation; Maintenance & Repair	Architecture & Engineering
	Healthcare Support	Arts, Design, Ent., Sports & Media
	Community & Social Services	Life, Physical, & Social Science
		Legal

- Likewise, similarities and notable differences in the industries of employed residents among the comparison geographies may assist in identifying training and educational needs.** The top industries of employed residents shared by the county, Rest of ABAG, and the State include, in order, (1) health care & social assistance; (2) retail trade; and (3) manufacturing. (The Sacramento Region shares the top two industries; the third-largest industry of employed residents is public administration, with manufacturing composing the eighth-largest industry.) The following table illustrates the top three industries and higher and lower percentages of employed residents in specific industries relative to the Rest of ABAG and the State. *Figure 20, pg. 21.*

Top Industries of Employed Residents	Percentage of Employed Residents' Industries in County Relative to Rest of ABAG and State	
	Higher Percentage	Lower Percentage
Health Care & Social Assistance	Health Care & Social Assistance	Manufacturing
Retail Trade	Retail Trade	Educational Services
Manufacturing	Transportation & Warehousing	Professional, Scientific & Technical Services
		Other Services
		Administrative & Waste Services
		Information

## Commuting Patterns

- **High levels of out-commuting by county residents to high-wage jobs indicate an opportunity for county businesses to attract a greater percentage of employable residents.** One reason for high levels of out-commuting is the differential between employed residents (approximately 182,000) and the number of jobs in the county (approximately 120,000). Other reasons include worker preferences to work outside the county for a better job fit, worker housing preferences, and higher wage jobs outside the county.

In evaluating commute patterns, 63 percent of county residents commute outside the county (e.g., to San Francisco, Sacramento, Oakland, Napa, or Concord). Of these out-commuters, nearly half (48 percent) are leaving for high-wage jobs (more than \$3,333 per month), 31 percent are leaving for medium-wage jobs (\$1,251 to \$3,333 per month), and 21 percent are leaving for low-wage jobs (less than \$1,251 per month). Fifty-five percent of out-commuters are being replaced by residents living outside the county and commuting into the county, with most coming from Sacramento, Napa, San Francisco, and San Jose. Interestingly, nearly 43 percent of in-commuters commute to a high-wage job (32 percent have medium-wage jobs and 26 percent have low-wage jobs). *Figure 27, pg. 28.*

## County Economy

### *Economic Diversity*

- **The county's economy is much less diverse than the Rest of ABAG and the State but is similar to the Sacramento Region.** Because this study's purpose is to assist the county in addressing economic diversification issues, it is not surprising the county ranks 0.87 on the Shannon-Weaver Diversity Index, well below a "perfectly diversified" economy score of 1.0.<sup>6</sup> Comparatively, the Rest of ABAG has a diversity index of 0.91, and the State has a diversity index of 0.92; the Sacramento Region has a diversity index equal to the county. It is important to note that small differences in the index score are significant in terms of the level of diversification. *Shannon-Weaver Diversity Indices, pg. 35-36.*

### *Industries of Employment (Jobs) in the County*

- **Concentrations of employment in the county relative to the comparison geographies may assist in selecting targeted industries for diversification.** The top industries of jobs in the county include, in order, (1) government; (2) health care and social assistance; and (3) retail trade. The following table illustrates higher and lower percentages of jobs in the county by industry relative to the comparison geographies. *Figure 35, pg. 37.*

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<sup>6</sup> The Shannon-Weaver Diversity Index is a quantitative measure that reflects how many different types (industries) there are in a dataset and simultaneously takes into account how evenly the basic entities (jobs) are distributed among those types.

Top Industries in County	Percentage of Jobs in County by Industry Relative to Comparison Geographies	
	Higher Percentage	Lower Percentage
Government	Health Care & Social Assistance	Administrative & Waste Services
Health Care & Social Assistance	Retail Trade	Other Services
Retail Trade	Construction	Finance & Insurance
	Transportation & Warehousing	Professional, Scientific & Technical Services
	Arts, Entertainment & Recreation	Information
		Management of Companies

- **Likewise, employment projections in the county by industry may assist in focusing economic development efforts.** Of the projected employment growth over the next decade, the following industries are anticipated to experience the greatest levels of growth in the county and far exceed growth at the State level:
  - Construction (86 percent).
  - Health Care & Social Assistance (42 percent).
  - Educational Services (38 percent).

Construction, in particular, is forecasted to experience very high levels of growth because of recovery from extreme losses the sector witnessed with the recent economic downturn (the Great Recession) and real estate bubble.

The county’s manufacturing sector is forecasted to experience a nearly 3-percent decline in jobs as a result of it sustaining or increasing its efficiencies; however, this is the only sector expected to see negative growth relative to four sectors statewide: manufacturing, agriculture, natural resources and mining, and utilities. Further, manufacturing is anticipated to remain an important component of the county economy, generating the highest economic output of any industry by 2022. *Figure 37, pg. 39.*

**Industry Specialization**

- **The county shows a high level of specialization for numerous industries, indicating current or historical locational advantages or unique operating conditions.** Specialization measures an industry’s share of total employment in one economy relative to its share in the larger regional, statewide, or national economy. The following table illustrates highly specialized and underspecialized industries in the county relative to the State. Many of the highly specialized industries are consumer-driven sectors. Moreover, some of the county’s highly specialized sectors—natural resources and mining, and utilities—are part of the county’s energy cluster, and maintaining and nurturing their level of specialization will benefit this focus area. *Figure 39, pg. 41.*

Industry Specialization of County Employment Relative to the State	
Highly Specialized	Underspecialized
Construction	Accommodation & Food Services
Health Care & Social Assistance	Manufacturing
Retail Trade	Other Services
Arts, Entertainment & Recreation	Agriculture
Government	Finance & Insurance
Transportation & Warehousing	Wholesale Trade
Natural Resources & Mining	Real Estate & Rental & Leasing
Utilities	Administrative & Waste Services
	Management of Companies
	Educational Services
	Professional, Scientific & Technical Services
	Information

**Base-Sector Employment Dynamics**

- **The county would benefit from focused economic development program activities related to both specialized and underspecialized base sectors, which drive economic development.** In the county, the base employment sectors of manufacturing and government account for more than half of base-sector activities.<sup>7</sup> The government sector is specialized relative to the State and has gained jobs over the past decade, while manufacturing is slightly underspecialized and has experienced a very slight decline in jobs since 2002 (-0.1 percent).

Manufacturing is the largest base sector and is expected to see negative employment growth in the next 10 years, highlighting the need to maintain and grow this sector, particularly as it is an important component of the county’s focus clusters (e.g., life sciences, energy, and food chain).

<sup>7</sup> Typical characteristics of base-sector activities include these:

- Facing few geographical constraints, allowing them to operate anywhere deemed attractive.
- Producing a significant amount of goods and services for domestic and international export.
- Bringing net new wealth into an economy.

Conversely, local-sector activities are located to serve a local market’s residents or base sectors and produce goods and services for local consumption, which generally moves wealth around a local area.

All the base sectors that have lost jobs also are underspecialized and could benefit from retention efforts that can help address business needs and nurture their growth. Some of these base sectors include Manufacturing and Professional, Scientific, & Technical Services, which are in all focus clusters of the county, and Agriculture and Accommodation & Food Services, which are in the Food Chain cluster. Other sectors, which are specialized and have seen job growth (e.g., Transportation & Warehousing; Finance & Insurance; Retail Trade; and Arts, Entertainment, & Recreation), also are candidates for business retention efforts. *Figure 40, pg. 43; Figure 41, pg. 44.*

### ***Economic Output***

- **The top three industries with the highest economic output in the county are projected to sustain their positions over the next 10 years.** Output refers to the market value of goods produced or services provided and is frequently reflected as the total revenue or sales in businesses. As of 2012, government, manufacturing, and health care and social assistance comprise the top three industries with the highest economic output in the county, with the latter two industries serving as important components of the county's focus clusters (e.g., life sciences, energy, and food chain). By 2022, economic output in the government sector is anticipated to decline as a percentage share of total output in the county but is still projected to generate the second-highest output in the county. Although Manufacturing also is anticipated to decline as a percentage share of total county output, it is anticipated to generate the highest output in the county. Health care is anticipated to represent the third-highest economic output, increasing its percentage share of total county output slightly. As a share of total county output, construction, information, and real estate and rental and leasing industries are anticipated to experience the largest increases in economic output by 2022. *Figure 45, pg. 48.*
- **Leading industry sectors generating the most output per employee could see fewer employment opportunities.** At about \$1.0 million per employee, the real estate and rental and leasing industry sector generates the greatest total output per employee in the county, lower than the State's value of around \$1.2 million for that sector. This was the case in 2012, and this sector is projected to continue to lead the other industries' output per employee value through 2022. The county's information sector had the second-highest output per employee value in 2012 (approximately \$612,000), which exceeded the statewide future real estate development.that sector. However, many of the top output per employee sectors (including real estate; information; utilities; natural resources; manufacturing; and professional, science, and technical services) can be considered output-driven, and future growth could require less employment demand, as most sectors are expected to see notable increases in productivity. *Figure 49, pg. 52.*

### ***Business Size Composition***

- **The county primarily is composed of small businesses with fewer than 20 employees, indicating the importance of supporting and growing these types of businesses.** More than 70 percent of county businesses contain fewer than 10 employees, and 85 percent of businesses in the county contain fewer than 20 employees, consistent with comparison geographies. Thus, the county should focus economic development programs and services on supporting this classification of businesses by understanding challenges and opportunities specific to small businesses in the county. *Figure 55, pg. 58.*

### **Cost of Doing Business**

- **In general, cities in the county have a favorable cost-of-doing-business index relative to proximate cities in surrounding counties but should focus on creating value for residents to attract and retain employers.** The cost-of-doing-business index accounts for taxes, fees, and economic development programs as part of the underlying cost comparisons. Vacaville ranks “very low,” Fairfield and Benicia rank “average,” and Vallejo is the only city in the county with a “very high” ranking. The rankings put these communities between cost ratings measured in communities in the Rest of ABAG and the Sacramento Region, which, for the most part, are classified as either “high” or “very high.” The results of this survey demonstrate that communities in the county generally have a regional and broader advantage in terms of the cost of doing business. However, a low cost of doing business is not sufficient without a focus to create a high quality of life for residents. A strategy to create value for residents, while continuing to manage costs, will assist in retaining and attracting new employers to the county. *Figure 59, pg. 62.*

### **Retail Leakage**

- **The county is experiencing retail leakage in numerous retail categories; however, adding retail is of secondary importance as an economic diversification strategy.** Based on an analysis of the gap between expected and actual retail spending activity, the county is experiencing retail leakages in all but four of the major retail categories. The largest leakages are occurring in the following retail categories: (1) nonstore retailers (e.g., e-commerce); (2) health and personal care stores; and (3) miscellaneous store retailers (e.g., office supplies, used merchandise). It should be noted that leakages in nonstore retailers are increasing in many regions because of the growing prevalence of e-commerce. This trend does not negate the relevance of brick-and-mortar retail outlets but does support the growth of unique and experiential retail to support non-retail employment and residential growth. The county is experiencing retail surpluses in the following retail categories: (1) food and beverage; (2) electronics and appliances; (3) general merchandise; and (4) clothing and clothing accessories. *Figure 64, pg. 67.*

## **Market Performance Indicators**

### **Commercial Office**

- **Although Vallejo contains the greatest amount of office space in the county, the Fairfield-Vacaville-Suisun City cluster represents the geographical center of commercial office space growth over the last decade.** In sum, the county has nearly 8.1 million square feet of commercial office space, with 1.6 million square feet of commercial office space added from 2000–2012, representing average annual growth of nearly 132,000 square feet. At 44 percent, Vallejo contains the most office inventory in the county, with an additional 44 percent of total county office inventory in Fairfield and Vacaville combined.

Of the 1.6 million square feet added in the county since 2000, more than half was constructed in Fairfield (almost 850,000 square feet), with Vacaville comprising nearly 35 percent of the growth (540,000 square feet), and Suisun City comprising 10 percent of the growth (158,000 square feet). Not surprisingly, Benicia and Vallejo, which primarily are

built out, added minimal office space over the same period (59,000 and 7,400 square feet, respectively). Dixon and Rio Vista did not add any commercial office space from 2000–2012.

- **Office market performance metrics in the county indicate a soft market.** Over the last 5 years, the county incurred negative net absorption of about 31,000 square feet; only the Vacaville-Fairfield market experienced positive net absorption of about 54,000 square feet. Average full-service lease rates for currently available office space range from \$0.96 per square foot in Vallejo, to \$2.20 per square foot in Suisun City, with the average lease rate in the county at about \$1.30 per square foot. A review of vacancy rates in the county confirms a challenged market for this land use. The vacancy rate for the county is 17 percent, representing 1.4 million square feet of space. A portion of this vacant space is likely obsolete and will be demolished and rebuilt, if financially feasible. However, if even half of the vacant space is viable, approximately 700,000 square feet is available to accommodate new employment demand for office space. This represents approximately 5 years of growth based on historical office space absorption in the county.

### **Industrial/R&D/Flex**

- **Fairfield and Benicia contain the most industrial inventory and experienced the highest growth in the county over the previous decade.** Eclipsing any other nonresidential land use, the county contains about 39.0 million square feet of industrial space, including all types of industrial (e.g., warehouse, distribution, light and heavy industrial, and R&D/Flex space). Of the current inventory in the county, Fairfield contains about 33 percent of space, and Benicia contains about 22 percent of space, followed by industrial space in the unincorporated county (15 percent).

About 6.0 million square feet of industrial space was added over the period 2000–2012, representing an annual average of 502,000 square feet. Fairfield led in new industrial/R&D/Flex space, with nearly half of the growth in the county (2.9 million square feet). Benicia absorbed almost 1.4 million square feet (more than 20 percent of total county growth). Dixon and Vacaville both added about 10 percent of total county growth in each jurisdiction (809,000 square feet and 575,000 square feet, respectively). Vallejo experienced negative growth of nearly 20,000 square feet from 2000–2012.

- **Industrial performance metrics in the county indicate a stable market.** The county experienced positive net absorption of about 950,000 square feet over the last 5 years. Currently, the county has a vacancy rate of 9 percent, indicating market equilibrium with stabilized rent. The exception to this finding is Vallejo, which has a substantial vacant supply of 1.2 million industrial square feet (representing 21 percent vacancy), driven by vacant industrial space on Mare Island and along the waterfront. As a corollary to the high vacancy rate, the average full-service lease rate for currently available space in Vallejo is the lowest in the county (\$0.34 per square foot). Remaining available space in the county is leasing for an average of \$0.40 per square foot.
- **With only 2.5 million square feet of space, the R&D/Flex market is small, and market performance indicators will be sensitive to tenancy changes.** The county has a vacancy rate of 13 percent, which is being driven upward by high vacancy rates in Dixon and Fairfield. Over the last 5 years, the county incurred negative net absorption of about 40,000 square feet. The strongest submarket in the county appears to be Vacaville with

positive net absorption of 18,000 square feet, a vacancy rate of 5 percent, and the highest full-service lease rate for available space of \$1.50. This finding may be indicative of the positive influence of key life science cluster businesses (e.g., Genentech) in terms of perception and market opportunities. Remaining R&D/Flex space in the county is leasing for an average of \$0.84 per square foot.

## Real Estate Supply and Demand Findings

### Supply Estimates

- **This study estimates the county contains nearly 7,500 acres of vacant land zoned for commercial office and industrial uses, with 3,180 acres (42 percent) included in incorporated cities.** As a basis for assessing real estate supply, which could accommodate short-, medium, and longer term real estate demand, this memorandum includes three estimated categories of supply: first-tier, second-tier, and third-tier. The tiers of real estate supply reflect land in various stages of development readiness, with the first-tier category able to accommodate immediate real estate demand, and the third-tier reflecting “zoned capacity” only. A preliminary assessment of first-tier land supply indicates the county contains approximately 680 acres of office and industrial land, all of which is contained in incorporated cities. Further, most of this vacant space (more than 90 percent) is contained in existing business parks in the cities of Fairfield and Vacaville.
- **In cities, a majority of short-term land supply is zoned to accommodate commercial space.** Nearly 60 percent of currently vacant land that could accommodate immediate real estate demand is zoned for office development. With soft office market performance indicators and future demand for industries requiring industrial and R&D/Flex space, the county may consider reviewing zoning designations to ensure the ability to capture future industrial growth in the county.

### Demand Projections

- **Between 1,120 and 1,730 acres of commercial office and industrial development is estimated to be demanded in the county over the next 20 years (2013-2033).** By 2033, the county is anticipated to experience demand for between 1,120 acres and 1,730 acres (i.e., 9.8 million square feet to 15.2 million square feet) of commercial office and industrial space. This demand translates into an annual absorption ranging from 56 acres to 86 acres (i.e., 491,000 to 760,000 square feet) of commercial office and industrial space. An overwhelming majority of this demand (80 percent) is anticipated to be for industrial space, including R&D/Flex space. While 20 percent of demand is anticipated for office space, future tenants in county business parks likely will seek “office flex” space; “pure” office users—including those seeking class A office space—may be best positioned in mixed-use city centers.

### Supply and Demand Comparison Conclusions

- **A preliminary evaluation of real estate supply and demand indicates incorporated cities have sufficient land to accommodate the next 20 years of real estate demand.** Over a 20-year period (2013–2033), the county is estimated to have ample vacant land supply to accommodate projected real estate demand for commercial office and industrial development. Even in the short term, a review of existing vacant land comprising immediate

development potential indicates sufficient land to accommodate the next 5 years of real estate demand for commercial office and industrial space combined. However, a comparison of first-tier opportunity sites and demand for future real estate development indicates the potential need to review zoning designations to ensure industrial and R&D/Flex space demand can be accommodated.

- **About 60 percent of the vacant land in cities is categorized as third-tier, requiring significant infrastructure investments to support future real estate development.** Incorporated cities contain about 1,800 acres and the unincorporated county contains about 4,300 acres of vacant land categorized as third-tier land. A portion of the unincorporated county's land may be ideal in responding to medium to longer term real estate demand.
- **The county should focus on several actions to elevate the county's position and fuel growth in the economy.** Based on conversations with local real estate brokers, the county should focus on these to spur economic development:
  - Continue to improve the county's transportation infrastructure.
  - Invest in broadband connectivity.
  - Improve the county's schools and post-secondary educational institutions.
  - Incentivize the development community and specific tenants to focus on developing intramarket sectors for the wine and warehousing industries.
- **The county should focus on facilitating development in areas that are in a stronger position to support future real estate demand.** Areas in the county best positioned to accommodate new employment growth include the shovel-ready land in the cities of Fairfield and Vacaville. To that end, the City of Fairfield, with excellent proximity to Napa Valley, has become a prime location for attracting additional wine-related manufacturing growth. The City of Vacaville has continued to define itself as a viable life science locale by attracting, retaining, and expanding major businesses, such as Genentech and Alza, and may be able to attract additional biomedical and pharmaceutical companies with increased employment growth.

# SOLANO COUNTY REAL ESTATE ASSESSMENT

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## Introduction

This section summarizes the estimated supply of existing, vacant commercial office and industrial land in the county and assesses the county's potential to accommodate future real estate demand over the next 20 years (2013–2033). These are key objectives of the real estate assessment:

- Characterizing the condition, location, and total amount of existing, vacant office and industrial land in the county. Specifically, existing, vacant office and industrial land has been categorized as follows:
  - **Office**—Includes land currently zoned as commercial, accommodating Class A, B, and C office space or office/R&D space; excludes land currently zoned as retail.
  - **Industrial**—Includes land currently zoned as industrial, accommodating all types of industrial uses such as warehouse, distribution, light and heavy industrial, and R&D/Flex space.
- Evaluating available commercial and industrial vacant land opportunities in the context of any governing constraints.
- Relating supply to overall land demand associated with future employment growth and commercial office and industrial absorption trends.
- Providing land supply recommendations to facilitate retaining, expanding, and attracting new businesses and industries based on a comparison of real estate supply and demand.

The following sections provide an overview of the county's office and industrial vacant land supply, its ability to support future economic development, and its potential to meet estimated land demand.

## Real Estate Supply Analysis

### Methodology

In evaluating the county's office and industrial land supply, EPS obtained information on vacant land inventories in each of the county's incorporated cities from a variety of sources, including brokerage Web sites, telephone interviews with local real estate brokers and other real estate professionals, and correspondence with city and county planning and economic development staff.<sup>8</sup> Vacant land acreages shown in this memorandum include all for-sale office and industrial

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<sup>8</sup> EPS consulted with the following brokerage Web sites as of December 2013: LoopNet; CBRE; Colliers, International; REIS; CoStar Group; and Cassidy Turley. A listing of interviews conducted for this study is included in **Appendix E**.

land in the current market as of December 2013; this assessment explicitly excludes vacant land zoned for residential and commercial retail development.

Vacant land parcels were evaluated to better understand their ability to support future development based on a variety of factors, including availability of utilities and services; connection to infrastructure; and availability of finished, graded-level pads. Then, land parcels were categorized into three types of opportunity sites—first-tier, second-tier, and third-tier—to provide an understanding of total vacant acreage available to support future real estate demand in the short, medium, and longer term.<sup>9 10</sup> Specific definitions of the three categories are provided below:

- **First-Tier Opportunity Sites**—Immediate development potential; finished pads where necessary grading and off-site improvements have been completed.
- **Second-Tier Opportunity Sites**—Medium-term development potential; parcels with some improvements, including utilities, services, and infrastructure, but which still need further improvement and require additional investment to accommodate development.
- **Third-Tier Opportunity Sites**—Long-term development potential; raw, unimproved land before grading, construction, and subdivision, but zoned appropriately as office or industrial. These sites do not have on-site utilities and have limited access to infrastructure and services.

In addition, EPS obtained information from real estate brokers regarding qualitative real estate market factors influencing the relative mix and characteristics of an optimal commercial and industrial land supply throughout the county. These factors include industry trends, tenants, key types of required infrastructure, and challenges and opportunities specific to the county.

### County Supply Profile

EPS researched available vacant land on the market in the county and categorized each parcel into three tiers of opportunity sites. The available land supply in each tier directly translates to a city's overall ability to support near-term or long-term development demand. This future land development demand directly responds to industry changes or growth, external or internal investment in the existing market, employment and demographic changes, and proximate infrastructure improvements. The higher amount of total vacant land supply in the first and second tiers demonstrates a city's stronger ability to meet future land demand and ability to meet market changes because finished land parcels already are in a condition to be used (i.e., shovel-ready). A preliminary summary of total vacant acres, currently zoned office or industrial,

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<sup>9</sup> The categorization of vacant land parcels into tiers, which serves to provide an understanding of real estate supply relative to short-term, medium-term, and longer term demand, is a preliminary assessment based on listing information for parcels. However, listing information is not standardized and, for many parcels, does not provide sufficient information to make a definitive judgment regarding that parcel's category. As a conservative approach, EPS categorized parcels with limited information as either a second-tier or third-tier parcel.

<sup>10</sup> As discussed in the initial summary, there are cases where "soft" market conditions have resulted in higher-than-average vacancies. Possible repositioning of certain assets in this regard will be factored in at a later date as part of the larger strategic framework.

by jurisdiction and by tier is shown in **Table 1**. The detailed listing of these vacant acres is provided in **Appendix C**. In addition, **Appendix C** includes maps which cite the location and relative size of vacant parcels by tier throughout the county. **Map C-1** shows the vacant land supply for all three tiers combined; **Map C-2**, **Map C-3**, and **Map C-4** show the vacant land supply in Tier 1, Tier 2, and Tier 3, respectively.

**First-Tier Opportunity Sites** present immediate availability for tenants and developers to build on vacant land that is shovel-ready. As shown in **Table 1**, there are about 680 acres of vacant land estimated to accommodate near-term real estate demand. Of this total, about 60 percent is zoned to accommodate office development (nearly 400 acres), with the remainder (nearly 290 acres) zoned to accommodate industrial development. In the county, the cities of Fairfield and Vacaville have the greatest amount of first-tier land, while the cities of Dixon, Rio Vista, Suisun City, and Vallejo have little to no shovel-ready land.<sup>11</sup>

**Second-Tier Opportunity Sites**, which are characterized as land with some utilities, comprise an estimated 690 acres. Vacaville contains the greatest amount of vacant land (about 320 acres). Vallejo has the second-largest amount of vacant land with about 240 acres, most of which is located on Mare Island. Fairfield has the third-largest amount of vacant land with about 80 acres. This second-tier land supply will require additional investment to accommodate medium-term real estate development. As Fairfield and Vacaville already have a large quantity of vacant land that can accommodate immediate real estate development, future demand likely will absorb in first-tier opportunity sites in these areas before further improvement of second-tier opportunity sites. Further improvement of second-tier sites will also be driven by the type of industry and their location preferences (i.e., maritime-oriented industrial uses may be compelled to improve sites on Mare Island).

**Third-Tier Opportunity Sites**, which can accommodate longer term real estate demand, comprise nearly 6,120 acres, with about 30 percent of the supply contained in incorporated cities (about 1,800 acres) and the remaining acreage contained in the unincorporated county (almost 4,320 acres). These parcels require significant investment, including grading and infrastructure improvements. Thus, these sites are not suited to accommodate immediate or medium-term development opportunities.<sup>12</sup>

Overall, the county contains nearly 7,500 acres of vacant land supply, with 3,180 acres contained in incorporated cities and almost 4,320 acres contained in the unincorporated county. In addition, an evaluation of market performance metrics indicates there is a significant amount of vacant, available space in the market. As shown in **Table B-4**, the county contains nearly 5.0 million square feet of vacant, available space, comprising 65 percent of industrial space (3.2 million square feet), almost 30 percent of office space (1.4 million square feet), and 5 percent of R&D/Flex space (332,000 square feet). Although this space is being marketed, it is plausible that a portion of this space is not suitable to accommodate future real estate demand because of various factors, including size, location, and age of structure. However, if even half

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<sup>11</sup> Local real estate brokers. Phone and e-mail interviews by EPS, December 2, 2013. Loopnet, <http://www.loopnet.com>. Co-Star, <http://www.costar.com>.

<sup>12</sup> Ibid.

of this space is viable, 2.5 million square feet of space could accommodate 3 to 7 years' worth of future real estate demand, given historical absorption trends in the county.

***Existing Major Business and Industrial Parks and Large-Scale Development Opportunities***

Larger business and industrial sites are a key part of the county's ability to attract and retain large firms to manufacture products locally and reduce imports. These businesses can help anchor the region's economy and provide existing local companies with markets and services that drive employment growth.

Existing business and industrial parks with remaining vacant land in incorporated cities and other large-scale development opportunities in the county are described below. Vacant acres in each business and industrial park, as well as large-scale commercial areas, are included in the real estate supply summary (**Table 1**) and detailed listing of vacant acres (**Table C-1**).

Business and Industrial Parks (Incorporated Cities)

- **Benicia Industrial Park and Port (Benicia, California)**—With 3,000 acres and 7 million square feet of built space, the Benicia Industrial Park is the largest port-oriented industrial park in Northern California. The park is located near the intersection of Interstate 680 (I-680) and Interstate 780 (I-780), with access to the deep-water port on the Carquinez Strait, 24 miles from the Golden Gate Bridge and Pacific Ocean. The park is home to more than 450 businesses and 6,500 employees. Its diverse anchors include Valero Refinery, Dunlop Manufacturing, BioRad Laboratories, and Schoenstein & Co. Pipe Organs. The Port of Benicia, operated by AMPORTS, encompasses 640 acres and 140,000 square feet of buildings. The Port's 2,400-foot deep-water pier can berth three vessels, with a dockside water depth of 38 feet. Rail service is provided by Union Pacific. The Port specializes in handling bulk products such as agricultural goods and motor vehicles. Based on conversations with city staff, the park is nearly built out, with a 3-acre vacant parcel remaining. The park also has about 1.3 million square feet of existing, vacant, available industrial space. However, future development and redevelopment is constrained by aging vertical construction and the need for roadway and broadband improvements.
- **Busch Corporate Center (Fairfield, California)**—The Busch Corporate Center is located at the convergence of I-80 and State Route 12 in Fairfield, California, with portions of the park served by rail. The park contains 250 acres of limited industrial zoned land and existing development, including the Anheuser-Busch Brewery; Guittard Chocolate Company; Papyrus; Sutter Medical Center; Tricor Braun (packaging solutions); and Harbinger (fitness, skate, and industrial product manufacturer). Currently, the park contains about 85 acres of available land.<sup>13</sup>
- **Fairfield Corporate Commons (Fairfield, California)**—Fairfield Corporate Commons encompasses 72 acres of industrial business park-zoned land. Of this total acreage, 48 acres are available to accommodate future development. The park is located at Suisun Valley Road, adjacent to the Solano Community College and is accessible via I-80, although not served by rail. Existing tenants include the Laborers Trust Funds of Northern California and a cluster of economic development organizations, including the Solano Economic Development

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<sup>13</sup> Ibid.

Corporation (Solano EDC), Workforce Investment Board (WIB), and the Solano County Small Business Development Center.<sup>14</sup>

- **Fairfield Train Station (Fairfield, California)**—The Fairfield Train Station Specific Plan will create a unique new neighborhood, located on approximately 3,000 acres in Northeastern Fairfield. The area has long been planned for development in the Fairfield General Plan and is anticipated to build out over the next 20 years or more (through 2033 or later). The Train Station area will be a master-planned community containing clustered development areas ultimately planned to accommodate up to 6,800 housing units, a 30-acre neighborhood commercial core surrounding the proposed train station, a business park, parks, trails, and recreation facilities. The business park comprises 300 acres total, with 100 acres devoted to light industrial uses and 200 acres devoted to heavy industrial uses. Currently, this land is zoned for industrial uses but requires a full slate of infrastructure improvements to accommodate development.
- **Green Valley Corporate Park (Fairfield, California)**—The Green Valley Corporate Park is located at the intersection of I-80, I-680, and State Route 12. Although there is no rail access, the park has excellent I-80 and I-680 access and exposure. The park totals 122 acres and contains 520,000 square feet of existing occupied space with the following tenants: Partnership HealthPlan of California (healthcare management); GeoVera Holdings, Inc. (a holding company whose subsidiaries provide residential insurance products); and Kiewit Pacific Co. (construction, engineering, and mining services). In addition, two hotels—Staybridge Suites and Homewood Suites—recently were constructed. There are plans to construct an additional 2.0 million square feet of space on nearly 75 acres to accommodate Class A office space, R&D/Flex space, restaurants, childcare facilities, and a health club, including planned medical office and commercial buildings for sale or lease, and land available for sale or build-to-suit (1-acre to 50-acre parcels).<sup>15</sup> <sup>16</sup>
- **Green Valley Office Park (Fairfield, California)**—The Green Valley Office Park is located at the intersection of I-80, I-680, and State Route 12, directly adjacent to the Green Valley Corporate Park. The park comprises 20 acres and is accessible via I-80 and I-680 but is not rail-served. Existing tenants include the Solano County Office of Education, the Fairfield-Cordelia Library, and University of Phoenix. Currently, there are 15 acres of regional and neighborhood office-zoned land available.<sup>17</sup>
- **Solano Business Park (Fairfield, California)**—The Solano Business Park is located off State Route 12 between Chadbourne Road and Beck Avenue, with portions of the park served by rail. The park contains 220 acres, with 67 acres of land currently available to accommodate limited industrial and industrial business park uses. The park has a food-processing focus, housing Jelly Belly Candy Company, Calbee America (Japanese snack food

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<sup>14</sup> Ibid.

<sup>15</sup> Green Valley Corporate Park Web site, <http://www.greenvalleycorporatemark.com>.

<sup>16</sup> City of Fairfield Office and Industrial Business Parks:  
[http://www.fairfield.ca.gov/gov/depts/manager/ed/site\\_selection\\_and\\_incentives/office\\_and\\_industrial\\_business\\_parks/default.asp](http://www.fairfield.ca.gov/gov/depts/manager/ed/site_selection_and_incentives/office_and_industrial_business_parks/default.asp)

<sup>17</sup> Ibid.

maker), Engelhart Fine Foods, ABCO Laboratories (manufacturer for the food and nutritional product industries), and Abbott Labs/Ross Division (nutritional food manufacturer). Other existing tenants include TenCate Advanced Composites, Pacific Bell Data Center, Professional Hospital Supply, and Amcor PET Packaging.<sup>18</sup>

- **South Cordelia Area Business Park (Fairfield, California)**—The South Cordelia Area Business Park is located off I-680 in the South Cordelia portion of Fairfield, along Fulton Drive between Lopes Road and Watt Drive. The park comprises nearly 400 acres and houses a variety of existing industrial tenants, including Glass Pak (rail-served wine-related packaging); Pacific Coast Steel (steel fabrication and installation); Dependable Plastics (plastic manufacturing, shipping, warehousing); Scott Lamp Company (lighting design and manufacturing for the hospitality and design communities); Munters (indoor climate solutions for pharmaceutical, food, electronic, agriculture, and commercial tenants); and Bay-Tec Engineering (engineering services). There are 13 acres of limited industrial-zoned land available to accommodate new development.<sup>19</sup>
- **Tolenas Industrial Park (Fairfield, California)**—The Tolenas Industrial Park is located adjacent to TAFB, at the intersection of Air Base Parkway and Peabody Road. The park comprises 273 acres with 46 acres of available, vacant land. The park is zoned for heavy industrial and limited industrial uses. Existing tenants include Clorox, Duracite (custom countertops), MacroPlastics, Ball Metal, St. Gobain (container manufacturer), Frank-Lin Distillers (office and warehouse distribution), Ashland Chemicals (chemical manufacturer), and Rexam (beverage can maker).<sup>20</sup>
- **Rio Vista Business Park (Rio Vista, California)**—The Rio Vista Business Park is located off State Route 12 and State Route 84 on Poppy House Road, adjacent to the Rio Vista airport and accessible from the Sacramento River. The park comprises nearly 100 acres, with 75 acres of currently vacant land. Of this vacant land, 25 acres have full access to all utilities, including fiber optics. Existing tenants include Gomes Excavation, Paul Graham Drilling, Horizon Drilling, A.R. Ready Mix, Dutra Drilling, Insight Design (metal etching), California Vegetable Specialties, and the City of Rio Vista’s Police Department.<sup>21</sup>
- **Airport Business Park (Vacaville, California)**—The Airport Business Park is a 220-acre master-planned community designed to provide easy freeway access and excellent site visibility. The area is planned for commercial, industrial, and office uses with rezoning in place to allow for immediate development. The Airport Business Park also includes the Solano County Nut Tree Airport, with its expanded 4,700-foot runway. The Nut Tree Airport accommodates light aircraft to corporate jets and provides a safe, convenient, well-maintained facility for general aviation and business aviation use. The Airport Business Park is strategically located adjacent to East Monte Vista Avenue and Interstate 505 (I-505) and

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<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup> City of Rio Vista Business Park: <http://riovistacity.com/business-park-ed/>.

has direct, convenient access to I-80. Currently, the park contains almost 8 acres of shovel-ready land zoned to accommodate warehouse industrial uses.<sup>22</sup>

- **Interchange Business Park (Vacaville, California)**—The Interchange Business Park is a 670-acre manufacturing, industrial and office park located north of Vaca Valley Parkway, west of I-505 and south of Midway Road. The master-planned area has direct access to I-505 via the Midway Road/I-505 interchange with visibility from I-505, which creates the Park's eastern border. The Interchange Business Park Policy Plan establishes the zoning and site development standards to guide the development and allows for expeditious administrative approval of the individual sites. Currently, the Interchange Business Park comprises about 227 acres of vacant land, with about 45 acres defined as shovel-ready.<sup>23</sup>
- **Vacaville Golden Hills Business Park (Vacaville, California)**—The Vacaville Golden Hills Business Park is a 640-acre master-planned industrial park located at the intersection of I-80 and I-505, just south of the Vaca Valley Parkway, with excellent visibility from both I-80 and I-505. The area is planned for industrial, office, and commercial uses. The approved policy plan for the Vacaville Golden Hills Business Park establishes the zoning and site development standards to guide the development and allows for expeditious administrative approval of the individual sites. Currently, the park features 99 fully improved acres, zoned for commercial office, available for sale or build-to-suit, with sites ranging from 5 to 47 contiguous acres.<sup>24</sup> In addition, the park contains about 65 acres of vacant land zoned for industrial space, with about 30 acres defined as shovel-ready.<sup>25</sup>
- **Vaca Valley Business Park (Vacaville, California)**—Vaca Valley Business Park, a 400-acre master-planned community, is located at the intersection of I-80 and I-505, with 2 miles of I-80 freeway frontage and 1½ miles of I-505 freeway frontage. The Park, containing 416 acres, houses the Genentech campus and Kaiser Permanente. Currently, real estate brokers are marketing 119 acres in the business park (comprising 12 parcels ranging from 8 to 16 acres) as shovel-ready land that can accommodate office, R&D/Flex, hotel, medical, light industrial and manufacturing, warehouse and distribution, membership organization, and restaurant land uses.<sup>26</sup> Based on conversations with city staff, 140 acres of vacant land is zoned to accommodate commercial office uses, all of which are defined as shovel-ready.
- **Mare Island (Vallejo, California)**—Mare Island, which comprises more than 5,000 acres and 1,200 developable acres, is the former home of the Mare Island Naval Shipyard. Naval operations ceased and the facility was decommissioned in April 1996. Currently, approximately 100 businesses lease and own property on the island, including Touro

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<sup>22</sup> E-mail communication with Vacaville planning staff, February 2014.

<sup>23</sup> Ibid.

<sup>24</sup> LoopNet Vacaville Business Park listing: <http://www.loopnet.com/Listing/16564940/Vaca-Valley-Pkwy-Vacaville-CA/>.

<sup>25</sup> E-mail communication with Vacaville planning staff, February 2014.

<sup>26</sup> Vacaville Gateway Properties brochure: <http://www.ci.vacaville.ca.us/modules/showdocument.aspx?documentid=1888>.

University, Jerico Products (maritime contractor), U.S Forest Service, the Veterans Administration, Alstom Transportation, XKT Engineering, Syar Industries, PackagingArts (packaging design), Enclos (specialty contractor for building facades), and Blu Homes (manufacturing facility). To date, 3.5 million square feet of commercial space is occupied, and additional space is being renovated or redeveloped. Mare Island will include more than 7 million square feet of commercial space (for office, retail, industrial, and maritime uses) at full buildout of the island. The mixed-use community also includes 272 homes built and sold, 1,100 homes to be built, a golf course, a K-8 public school, and open space that provides recreational opportunities. The City of Vallejo, in collaboration with its development partners, continues to facilitate the environmental clean-up and upgrade of infrastructure islandwide. The City of Vallejo continues to seek a development partner for the 157-acre commercial site at the North Island adjacent to State Route 37.

Large-Scale Development Opportunity Areas (Unincorporated County)<sup>27</sup>

- **Collinsville (Unincorporated Solano County, California)**—Water-dependent industrial is a potential long-term use in this area, particularly to the east of Collinsville and buffered from the existing community. Approximately 1,350 acres of land are designated for this use. Other future uses include environmental education and recreation uses associated with Collinsville’s location on the Delta. Existing infrastructure, including inadequate industrial transportation, is a key limiting factor for any future development of this area.
- **North Vacaville (Unincorporated Solano County, California)**—This area includes approximately 660 acres of industrially and commercially designated land around the Midway Road/I-505 and Midway Road/I-80 intersections. Existing businesses in the incorporated area of Vacaville are located nearby. These areas may be suitable for industrial manufacturing.
- **Lambie Road Area (Unincorporated Solano County, California)**—The Lambie Road area comprises approximately 1,525 acres. This area has long been designated for industrial use and as a Special Project Area in the county, which requires preparation of a specific plan describing a comprehensive approach to development, environmental, and infrastructure issues (roadway access in particular) before any development could occur in this area. However, the Lambie Road area has the potential to accommodate industrial uses that are not appropriate to place near residential areas.
- **Dixon Area (Unincorporated Solano County, California)**—This area includes approximately 750 acres (located northeast of the City of Dixon along I-80) designated for Highway Commercial, Service Commercial, and Limited Industrial uses. The Limited Industrial area recognizes the existing industrial uses and is further limited to agricultural service uses by county policies. Approximately 265 acres already are developed with highway commercial, service commercial, limited industrial, and agricultural processing and service uses, leaving 500 acres of vacant land.

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<sup>27</sup> Solano County General Plan, Economic Development Chapter (adopted in August 2008):  
<http://www.co.solano.ca.us/civicax/filebank/blobdload.aspx?blobid=6496>.

## Land Supply Market Trends

An examination of land market trends in the county shows a relatively stagnant market with few land transactions over the past few years. Based on interviews with real estate brokers, commercial and industrial land prices, tenant types, industry trends, recent transactions, and key constraints are summarized in the following sections.

### *Land Prices*

Land values have been relatively stagnant in the county, with a slight positive trend in 2013, indicated by a modest increase in price and a corresponding decline in vacancy rate. Future land values are projected to increase positively but slowly. Increasing land prices appear to be most prevalent in the Cities of Vacaville and Fairfield. Typical overall land prices for finished pads range from \$4 to \$10 per square foot, with higher prices reflecting proximity to the San Francisco Bay Area. These are average land prices for cities in the county:

- Benicia—\$7 to \$10 per land square foot.
- Fairfield—\$6 to \$8 per land square foot.
- Vacaville—\$4 to \$6 per land square foot.

### *Tenants*

The primary tenants occupying industrial land in the county have been in the refinery, logistics and warehousing, and agricultural processing (e.g., wine-related) industries. Because of its proximity to the Napa Valley, Fairfield contains several wine-supporting manufacturers, as well as value-added industries in submarket segments, including glass, cork, and label manufacturing. In addition, Fairfield contains a concentration of food processing tenants. Benicia's primary industries are in the refinery industry and biomedical sectors. Vacaville's primary industries are in the biotechnology and pharmaceutical industries, influenced by Genentech's strong local presence. Based on real estate broker input, Vacaville contains the most potential to accommodate future growth in high tech, medical, and agricultural-related industries. Also according to the local real estate brokerage community, Fairfield is well-positioned to support additional growth in manufacturing and warehousing industries in part because of its location off I-80 and near TAFB.<sup>28</sup>

### *Industry Trends*

Input from the real estate brokerage community indicates that the county should focus on the niche submarket segments of the wine industry and large-scale manufacturing. Specifically, there is projected demand for large warehouse space for logistics and wine-related manufacturing, as well as increasing demand for small entrepreneurial business space.

Genentech occupies 100 acres of space in the Vaca Valley Business Park in Vacaville, representing one of the world's largest biotechnology manufacturing sites. However, development of this facility has not catalyzed development of a robust biotechnology cluster in Vacaville or the county. According to the local real estate brokerage community, a biotechnology cluster has not grown because the existing types of related businesses have been self-contained

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<sup>28</sup> Local real estate brokers; refer to **Appendix E**. Phone and e-mail interviews conducted by EPS, December 2, 2013.

and do not have many peripheral submarkets.<sup>29</sup> It should be noted, however, that a few existing biotechnology firms in Vacaville—Janssen and Novartis—continue to grow operations.

### **Recent Transactions**

The most recent large transaction is development of new industrial space in Fairfield, proximate to the Busch Corporate Center. In July 2013, the Fairfield City Council approved a development agreement with The Buzz Oates Group of Companies to purchase 46 acres of surplus land on Cordelia Road, south of I-80 and State Route 12, for \$4.5 million. The \$30 million construction project comprises two large-scale buildings totaling 791,000 square feet of industrial space. The first building, totaling 318,000 square feet, is expected to be completed in 2014 and will house Encore Glass, a wine-bottle supplier company currently in Benicia and expanding operations. Construction on the second 473,000-square-foot building is anticipated to commence in late 2014.<sup>30</sup> The building will be leased by Pennsylvania-based Saxco International, an alcoholic-beverage packaging distributor. Saxco's leases give the company an option to expand into a planned third building, an adjacent 177,000-square-foot warehouse.<sup>31</sup>

It is worth noting that, although not a land transaction, a second major expansion by a wine-bottler supplier from Benicia to Fairfield occurred in the fall of 2013. Bruni Glass Packaging consolidated multiple warehouses and a showroom to one larger 88,000-square-foot facility in Fairfield, also adjacent to the Busch Corporate Center. The two wine-bottle supplier expansions to Fairfield have freed up warehouse space in Benicia, while improving vacancy rates and construction valuation in the central county and strengthening ties between the county and the proximate wine industry.<sup>32 33</sup>

Another forthcoming addition to the county, the owner of Caymus Vineyards, a winery located in the Napa Valley, received approval to build a 5-million gallon-per-year wine production facility and distillery on current farmland adjacent to Fairfield in the unincorporated county. The land transaction for this project occurred several years ago, following a 2008 Napa County audit that indicated the winery exceeded its allowable production limit. The approved winery and distillery would be located on 178 acres and would become Suisun Valley's biggest winery. The first phase of construction is anticipated to commence in the spring of 2014, with subsequent phases occurring from 2014 to 2018.<sup>34 35</sup>

### **Key Constraints**

While there appears to be a large quantity of vacant land, the county must rely on private companies to make financial investments (e.g., infrastructure improvements) to further develop

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<sup>29</sup> Colliers International, Office and Industrial Research and Forecast Report, Q3 2013.

<sup>30</sup> "Commercial Development Guide 2013: Wine deals fill Solano County industrial vacancy," North Bay Business Journal, December 16, 2013.

<sup>31</sup> "Packaging Supplier Plans Fairfield 'Megacenter,'" North Bay Business Journal, January 13, 2014.

<sup>32</sup> "Bruni Glass to Expand to Fairfield," North Bay Business Journal, September 16, 2013.

<sup>33</sup> Colliers International, Industrial Research and Forecast Report, Q3 2013.

<sup>34</sup> "Caymus Proposes Large Cordelia Road Winery," Daily Republic, June 27, 2013.

<sup>35</sup> "Caymus Owner Approved for Large Solano Winery," North Bay Business Journal, September 9, 2013.

the Second-Tier and Third-Tier opportunity sites as demand materializes. However, to the extent that large owner-user proposals (such as additional campus-scale uses) may appear, the county should consider expansion options, including public-private approaches.

In addition, feedback from real estate brokers indicates that while there are vacant land opportunities in existing business parks, some of the land is not located near existing businesses and services. Additional research will be required to determine the extent to which vacant land falls into this category, as well as identifying strategies to address this constraint.

## Real Estate Demand Analysis

The demand for future commercial office and industrial space was estimated based on three growth scenarios for the 20-year period of 2013–2033. The purpose of creating these growth scenarios is to compare the supply of vacant land in the county with a range of potential demand for real estate by land use category. The first two growth scenarios are based on employment projections; the third growth scenario is based on a continuation of historical commercial office and industrial absorption. Detailed descriptions of the scenarios are provided below:

- **Scenario 1: County Regional Transportation Impact Fee Scenario.** This scenario is based on employment projections (an average of ABAG and Woods & Poole projections) included in the October 30, 2013, County Regional Transportation Impact Fee (RTIF) Nexus Report, prepared by EPS and adopted by the County of Solano in December 2013. This scenario, which provides employment growth in total rather than by land use category, projects there will be about 21,800 new commercial office and industrial jobs added in the county over the period of 2013–2033.
- **Scenario 2: ABAG Scenario.** This scenario represents an ABAG-only employment growth projection prepared for this study. Under this scenario, new job growth is anticipated to create approximately 31,900 jobs through 2033. Space demand for commercial office and industrial land use categories is calculated based on empirical research, which assigns employment growth among various sectors to specific land use categories. The technical analysis that translates employment growth to demand for acreage and square feet by land use category is provided in **Appendix C**.
- **Scenario 3: Historical Scenario.** The historical scenario represents an extrapolation over the period 2013–2033 of average annual commercial office and industrial growth that occurred in the county over the period of 2000–2012, as obtained through CoStar and presented in **Appendix B**. As shown, land use demand is based on historical annual absorption of about 132,000 square feet of office and 502,000 square feet of industrial/R&D/Flex.

The estimated space demand for each category by scenario is provided in **Table 2**. The summary of estimated demand incorporates a 20-percent contingency factor to facilitate a conservative comparison of future demand and existing supply. As shown, over the 20-year period, the county is anticipated to experience demand from 930 to 1,440 acres (8.2 to 12.7 million square feet) of commercial office and industrial space. This demand translates to annual absorption of 47 to 72 acres (409,000 to 634,000 square feet) of office and industrial space.

With the 20-percent contingency factor, the county is anticipated to experience demand for 1,120 to 1,730 acres (9.8 to 15.2 million square feet) of commercial office and industrial space. This demand translates into an annual absorption of 56 to 86 acres (490,000 to 760,000 square feet) of office and industrial space.

An overwhelming majority of projected demand (80 percent) is anticipated to be for industrial space, including R&D/Flex space.

## Real Estate Supply and Demand Synthesis

A comparison between the existing, vacant land supply and projected demand in the county is presented in **Table 3** and summarized below. As shown, the comparison indicates a required balance of up to about 360 acres of third-tier land supply. As the first-tier vacant land is exhausted, the market will need to respond with investment to the vacant land categorized as both second-tier and third-tier lands.

Item	Acres		
	Low	Medium	High
Demand (2013-2033)	1,120	1,440	1,730
Less First-Tier Supply	(680)	(680)	(680)
Less Second-Tier Supply	(690)	(690)	(690)
<b>Balanced Required in Third-Tier Supply</b>	<b>0</b>	<b>70</b>	<b>360</b>

As shown in **Table 3**, the preliminary evaluation of real estate supply and demand indicates that incorporated cities have sufficient land to accommodate the next 20 years of real estate demand. Two key findings are highlighted below regarding the comparison of supply and demand:

- Although there appears to be sufficient vacant land supply in *total*, there may be greater demand for land to accommodate industrial development than what is immediately available, in particular in the short term. With the estimated oversupply of first-tier opportunity sites zoned for office, there is potential to either accommodate some industrial development demand, in particular R&D/Flex space, on existing land zoned for commercial office or this land may require rezoning.
- About 60 percent of the vacant land in cities is categorized as third-tier, requiring significant infrastructure investments to support future real estate development. The unincorporated county contains about 4,300 acres of vacant land, all of which also require significant investment in infrastructure to support future real estate development. A portion of the unincorporated county's land may be positioned to respond to medium to longer term real estate demand.

The county has several opportunities to support future office and industrial development, which will drive economic growth and increase the use of existing commercial and industrial vacant land supply. Based on conversations with local real estate brokers, the county should focus on

the following actions to elevate the county's position and fuel growth in the economy by attracting new businesses and supporting the expansion of existing businesses:

- Continue to improve the county's transportation infrastructure.
- Invest in broadband connectivity.
- Improve the county's schools and post-secondary educational institutions.
- Incentivize the development community and specific tenants to focus on developing intramarket sectors for the wine and warehousing industries.

Further, local real estate brokers indicated identifying areas in the county that are in a stronger position to support future real estate demand. New development near existing business parks that contain significant agglomerations of businesses among strategic sectors may allow for more cost effective business operations, less initial financial investment on land development, and accessibility to interact with existing market segments. Over the long term, development interests and new companies may seek to develop lands adjacent to existing business parks to serve the same geographic market area, or to develop near a site occupied by companies in a specific industry to serve a similar local market segment.

The areas in the county that are best positioned to accommodate new employment growth include the shovel-ready land in the cities of Fairfield and Vacaville. To that end, the City of Fairfield, with excellent proximity to Napa Valley, has become a prime location for attracting additional wine-related manufacturing growth. The City of Vacaville has continued to define itself as a viable life science locale by attracting, retaining, and expanding major businesses, such as Genentech and Alza, and may be able to attract additional biomedical and pharmaceutical companies with increased employment growth.

**Table 1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Vacant Land Supply Summary**

	Opportunity Sites (Acres) [1]											
	First-Tier			Second-Tier			Third-Tier			Total		
	Office	Industrial	Total	Office	Industrial	Total	Office	Industrial	Total	Office	Industrial	Total
<b>Solano County</b>												
Benicia	0.4	24.6	25.0	0.0	0.0	0.0	4.5	354.0	358.5	4.9	378.6	383.5
Dixon	4.4	0.0	4.4	8.5	0.0	8.5	13.8	457.4	471.2	26.7	457.4	484.1
Fairfield	137.5	198.0	335.5	27.1	52.0	79.1	55.9	311.7	367.6	220.5	561.7	782.2
Rio Vista	0.0	0.0	0.0	0.0	25.0	25.0	0.0	49.5	49.5	0.0	74.5	74.5
Suisun City	4.9	0.0	4.9	13.3	0.0	13.3	527.0	0.0	527.0	545.2	0.0	545.2
Vacaville	243.9	63.9	307.8	145.5	176.6	322.0	3.2	27.0	30.2	392.5	267.5	660.0
Vallejo	5.2	0.0	5.2	10.6	230.6	241.2	5.0	0.0	5.0	20.8	230.6	251.4
Uninc. County	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4,308.0	4,315.0	7.0	4,308.0	4,315.0
<b>Total</b>	<b>396.3</b>	<b>286.5</b>	<b>682.8</b>	<b>205.0</b>	<b>484.2</b>	<b>689.1</b>	<b>616.3</b>	<b>5,507.6</b>	<b>6,124.0</b>	<b>1,217.6</b>	<b>6,278.3</b>	<b>7,495.9</b>
In Cities	396.3	286.5	682.8	205.0	484.2	689.1	609.3	1,199.6	1,808.9	1,210.6	1,970.3	3,180.8
In Uninc. County	0.0	0.0	0.0	0.0	0.0	0.0	7.0	4,308.0	4,315.0	7.0	4,308.0	4,315.0

"supply\_summ"

Source: Data as of June 2014 obtained from CoStar and Solano county jurisdictions; EPS.

[1] Opportunity sites are organized and defined as follows:

**First-Tier Opportunity Sites** – Immediate development potential; finished pads where all necessary grading and off-site improvements have been completed.

**Second-Tier Opportunity Sites** – Medium-term development potential; parcels with some improvements including utilities, services and infrastructure, but which still need further improvement and will require longer time to develop into finished properties.

**Third-Tier Opportunity Sites** – Long-term development potential; raw, unimproved land prior to grading, construction, and subdivision but zoned appropriately as commercial office or industrial. No on-site utilities and limited access to infrastructure and services.

**Table 2**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Overall Summary of Land Demand Scenarios: 2013-2033**

Item	Scenario 1: County RTIF Scenario [1]		Scenario 2: ABAG Scenario [1]		Scenario 3: Historical Scenario [1]	
	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.
<b>Base Demand</b>						
<b>Total (2013 - 2033)</b>						
Office [2]	-	-	179	1,560,000	302	2,631,898
Industrial [3]	-	-	1,018	8,979,000	1,138	10,041,595
<b>Total Office and Industrial</b>	<b>930</b>	<b>8,187,071</b>	<b>1,197</b>	<b>10,539,000</b>	<b>1,440</b>	<b>12,673,493</b>
<b>Annual Absorption</b>						
Office [2]	-	-	9	78,000	15	131,595
Industrial [3]	-	-	51	448,950	57	502,080
<b>Total Annual Absorption</b>	<b>46</b>	<b>409,354</b>	<b>60</b>	<b>526,950</b>	<b>72</b>	<b>633,675</b>
<b>Demand Incl. 20% Contingency [4]</b>						
<b>Total (2013 - 2033)</b>						
Office [2]	-	-	215	1,872,000	362	3,158,278
Industrial [3]	-	-	1,222	10,774,800	1,366	12,049,914
<b>Total Office and Industrial</b>	<b>1,116</b>	<b>9,824,485</b>	<b>1,436</b>	<b>12,646,800</b>	<b>1,729</b>	<b>15,208,192</b>
<b>Annual Absorption</b>						
Office [2]	-	-	11	93,600	18	157,914
Industrial [3]	-	-	61	538,740	68	602,496
<b>Total Annual Absorption</b>	<b>56</b>	<b>491,224</b>	<b>72</b>	<b>632,340</b>	<b>86</b>	<b>760,410</b>

"demand\_summ"

Source: ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; US Census; SCAG Employment Density Study 2001 by the Natelson Company; CoStar; EPS.

[1] Land demand scenarios are described as follows:

**Scenario 1: County RTIF Scenario** represents total growth in "Other" (commercial/industrial combined) development for the period 2013-2033, based on an average projected growth rate per ABAG and Woods & Poole and included in the October 30, 2013 Regional Transportation Impact Fee (RTIF) Nexus Report (Table 4) prepared by EPS. Total square feet is based on growth of 21,800 commercial office and industrial jobs in the county and 375 square feet per employee, on average. Acreage is based on the same average Floor Area Ratio as calculated in Scenario 2 (approximately 0.20).

**Scenario 2: ABAG Scenario** represents an ABAG-only growth projection prepared for this project, with detailed calculations provided in the remainder of Appendix D.

**Scenario 3: Historical Scenario** represents the extrapolation over the period 2013-2033 of average annual growth that occurred in the County from 2000-2012 per CoStar (refer to Appendix B for more information).

[2] Includes low-rise, high-rise, and government office.

[3] Includes R&D/flex, light industrial, warehouse/distribution, and other industrial. Other industrial includes open storage, processing, heavy manufacturing, utilities, trades, and transportation.

[4] Includes a 20 percent contingency factor to facilitate a conservative comparison of future demand and estimated supply.

**Table 3**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Real Estate Supply and Demand Comparison (Rounded)**

Land Use Category	SUPPLY: Vacant Acres	DEMAND (Acres) [1]			(Undersupply)/Oversupply		
		Scenario 1: County RTIF Scenario	Scenario 2: ABAG Scenario [2]	Scenario 3: Historical Scenario [2]	Scenario 1: County RTIF Scenario	Scenario 2: ABAG Scenario	Scenario 3: Historical Scenario
<i>Source</i>	<i>Table 1</i>		<i>Table 2</i>				
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = a - b</i>	<i>f = a - c</i>	<i>g = a - d</i>
<b>First-Tier (2013-2018)</b>							
Office	396	-	54	91	-	343	306
Industrial	286	-	305	342	-	(19)	(55)
<b>Total (Rounded)</b>	<b>680</b>	<b>280</b>	<b>360</b>	<b>430</b>	<b>400</b>	<b>320</b>	<b>250</b>
<b>First + Second-Tier (2013-2023)</b>							
Office	601	-	107	181	-	494	420
Industrial	771	-	611	683	-	160	88
<b>Total (Rounded)</b>	<b>1,370</b>	<b>560</b>	<b>720</b>	<b>860</b>	<b>810</b>	<b>650</b>	<b>510</b>
<b>Total in Cities (2013-2033)</b>							
Office	1,211	-	215	362	-	996	848
Industrial	1,970	-	1,222	1,366	-	749	604
<b>Total (Rounded)</b>	<b>3,180</b>	<b>1,116</b>	<b>1,440</b>	<b>1,730</b>	<b>2,060</b>	<b>1,740</b>	<b>1,450</b>
<b>Total Countywide (2013-2033)</b>							
Office	1,218	-	215	362	-	1,003	855
Industrial	6,278	-	1,222	1,366	-	5,057	4,912
<b>Total (Rounded)</b>	<b>7,500</b>	<b>1,116</b>	<b>1,440</b>	<b>1,730</b>	<b>6,380</b>	<b>6,060</b>	<b>5,770</b>

Source: EPS.

"comp"

[1] Based on demand including 20% contingency factor.

[2] First-Tier and First + Second-Tier demand assumes 5-year and 10-year periods of absorption, respectively, based on average annual absorption of acres shown in Table C-1.



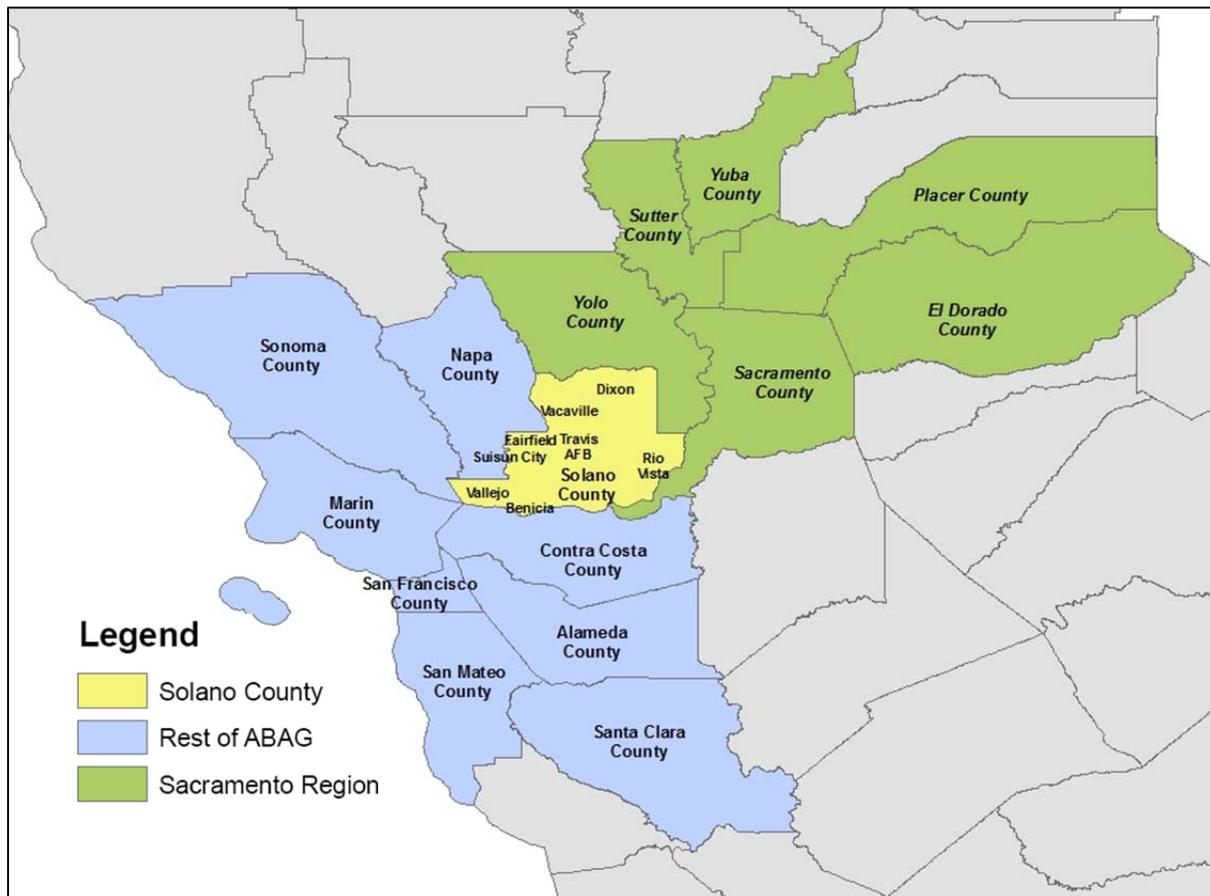
## APPENDIX A: Demographic and Economic Profile

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## SOLANO COUNTY DEMOGRAPHIC AND ECONOMIC PROFILE

This profile provides relevant context and background information to assess Solano County’s demographic and economic characteristics that will assist in identifying economic opportunities and for developing an economic diversification strategy. The report is broken into two sections related to Demographic & Workforce and Economic characteristics covering topics such as population, income, industry and occupation employment, commute patterns, cost of business, and taxable sales, among others. For comparison purposes, data for county’s two neighboring regions and California are provided, where available. The Rest of ABAG area, as highlighted in Figure 1 below, includes eight counties (minus Solano County) in the Association of Bay Area Governments service area while six counties are included in the Sacramento Region.

FIGURE 1  
SOLANO COUNTY AND SURROUNDING REGIONS MAP

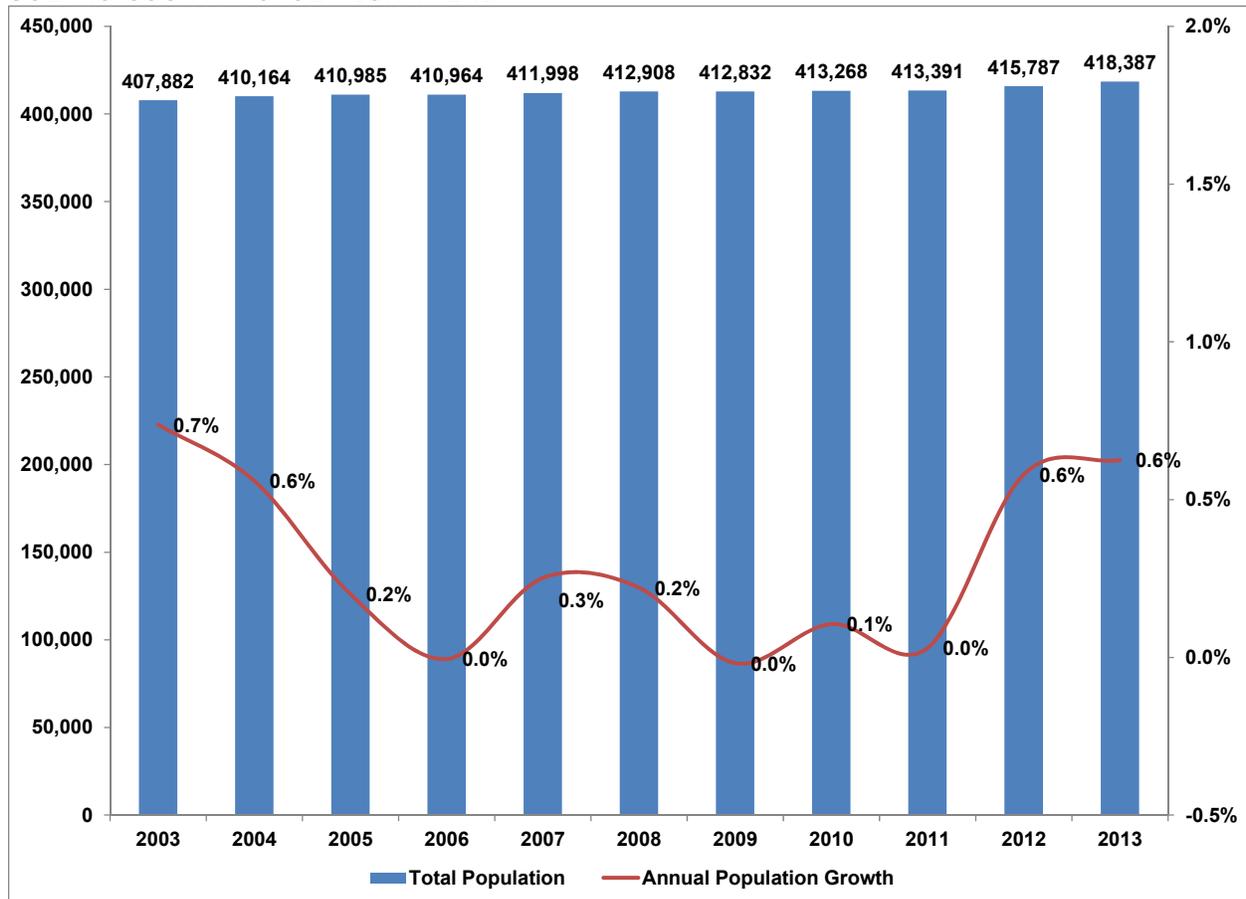


Center for Strategic Economic Research, October 2013

**Demographic and Workforce Profile**

Figure 2 shows that Solano County’s population is approximately 418,000, which is an increase of about 10,000 people since 2003. Annual average growth has fluctuated between a high of 0.7 percent to a low of no growth, averaging 0.3 percent annual growth in the 10-year time period. The county’s population includes institutional population which is defined as those residing in group quarters such as in the military, students, and prisoners. Travis Air Force Base’s 2012 Economic Impact Analysis reports that 8,151 of its 13,409 personnel live in the local area. Additionally, military and civil service retirees from the base comprise a notable portion of the county’s population—of its 105,000 retirees, almost 16,000 are county residents.

**FIGURE 2  
SOLANO COUNTY POPULATION TREND**



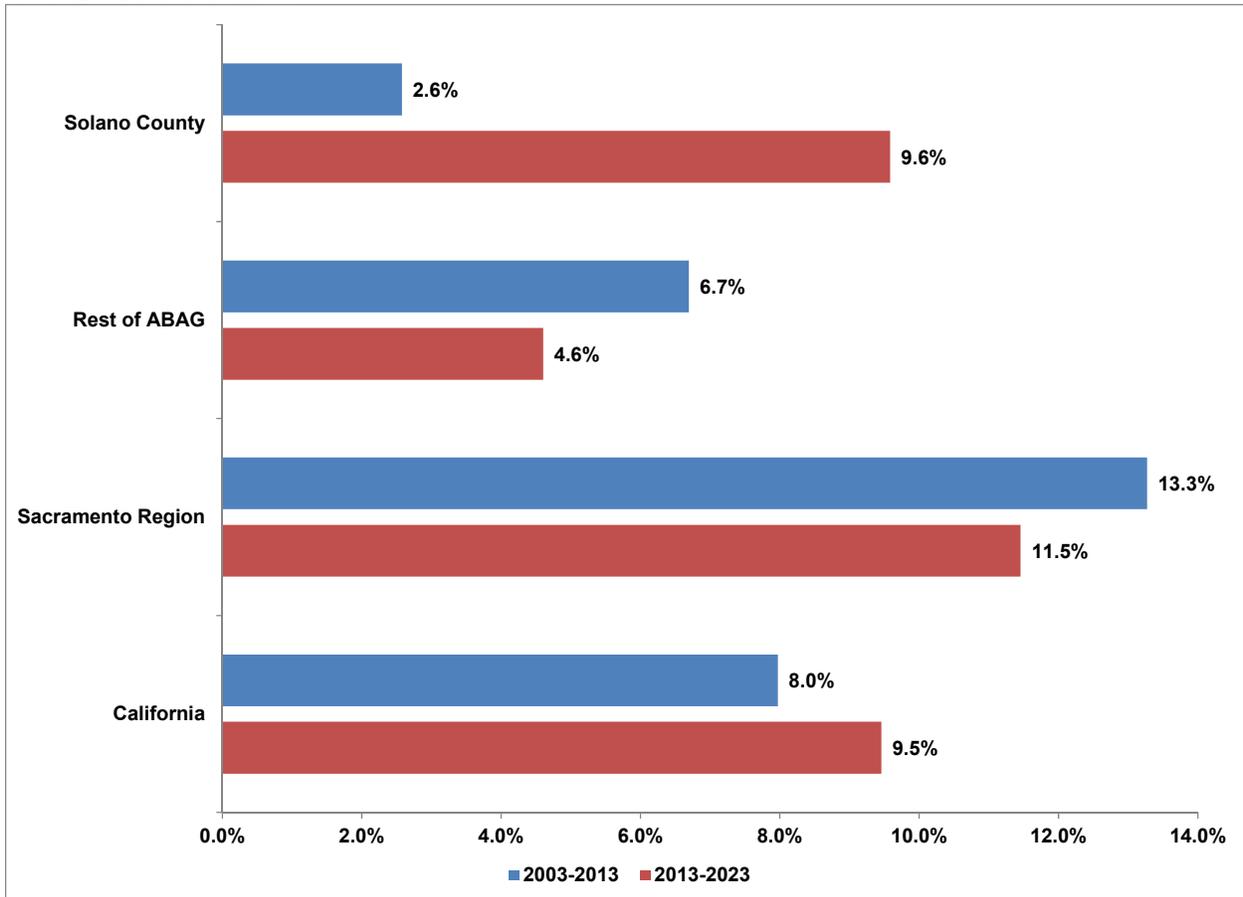
Center for Strategic Economic Research, October 2013

Data Source: California Department of Finance E-4 Population Estimates for Cities, Counties and State, 2001-2010 and E-1: City/County Population Estimates with Annual Percent Change January 1, 2012 and 2013

In comparison to the Rest of ABAG, the Sacramento Region, and California, Solano County showed the lowest level of population growth (nearly 3 percent) from 2003 to 2013 while the others ranged from about 7 percent to 13 percent (Figure 3). This is partially attributed to out-migration patterns that occurred in the county in this time period based on California Department of Finance estimates. Population growth trends analyzed for the five-year period beginning prior to the recession (2003 to 2008) and during and after it (2008 to 2013) show no variation for the county, which is opposite from statewide trends.

In the projected 10-year time period, the California Department of Finance projects that the county will show much stronger growth (almost 10 percent) that is just above California’s growth rate and between the Rest of ABAG (about 5 percent) and the Sacramento Region (approximately 12 percent).

FIGURE 3  
POPULATION GROWTH



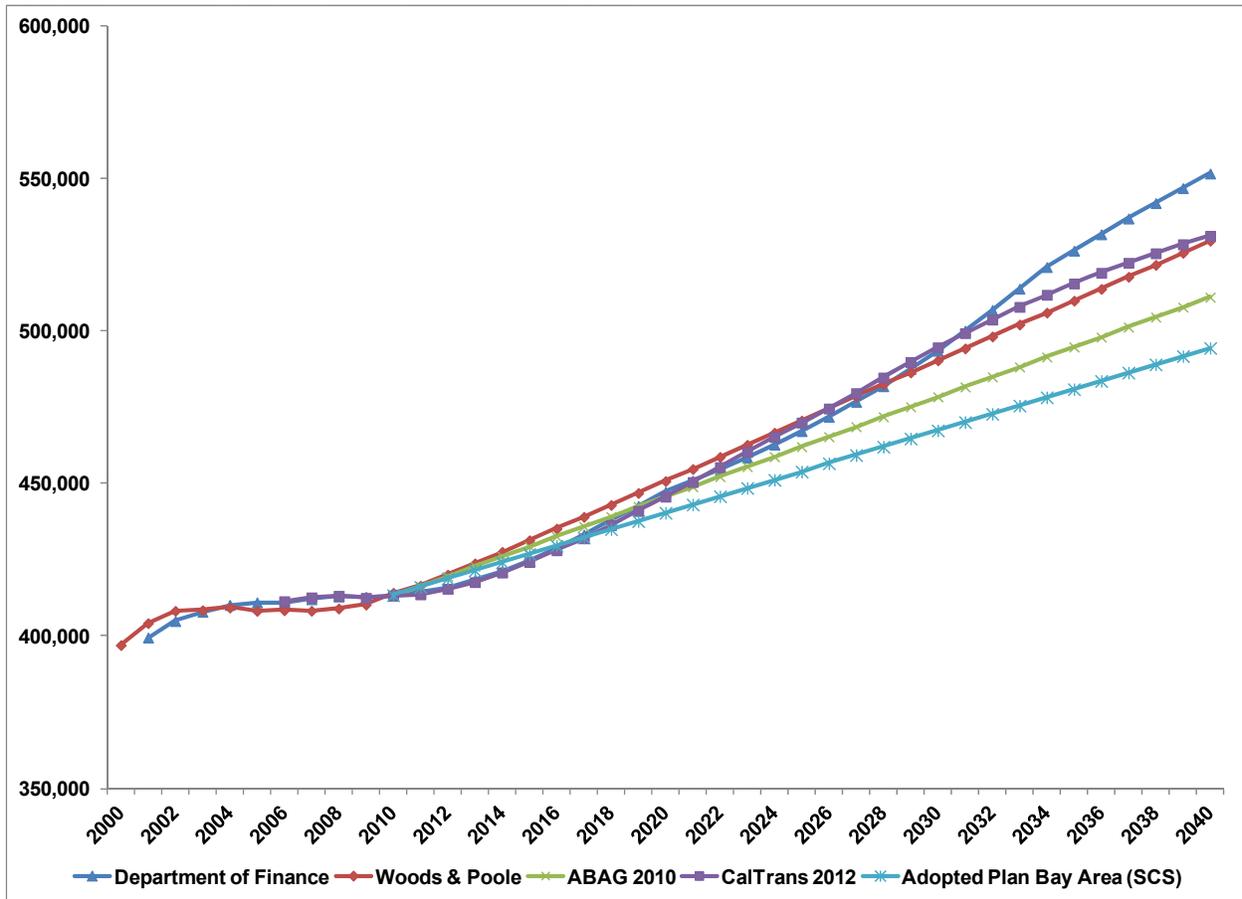
Center for Strategic Economic Research, October 2013

Data Source: California Department of Finance E-1: City/County Population Estimates with Annual Percent Change January 1, 2012 and 2013 and Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060 (by year)

## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

In addition to the California Department of Finance, Woods & Poole Economics, Association of Bay Area Governments (ABAG) 2012 Jobs Housing Connection Strategy, California Department of Transportation (CalTrans), and the March 2013 ABAG Sustainable Communities Strategy forecast (SCS) publish well-respected projections that present a range of growth outlooks for Solano County. In 2040, across all of these sources, it is projected that the county's population could range between around 494,000 and 551,000 people or around 21 percent to 32 percent growth in the 2013-2040 time period, as shown in Figure 4.

**FIGURE 4**  
**SOLANO COUNTY POPULATION TRENDS AND PROJECTIONS**



Center for Strategic Economic Research, October 2013

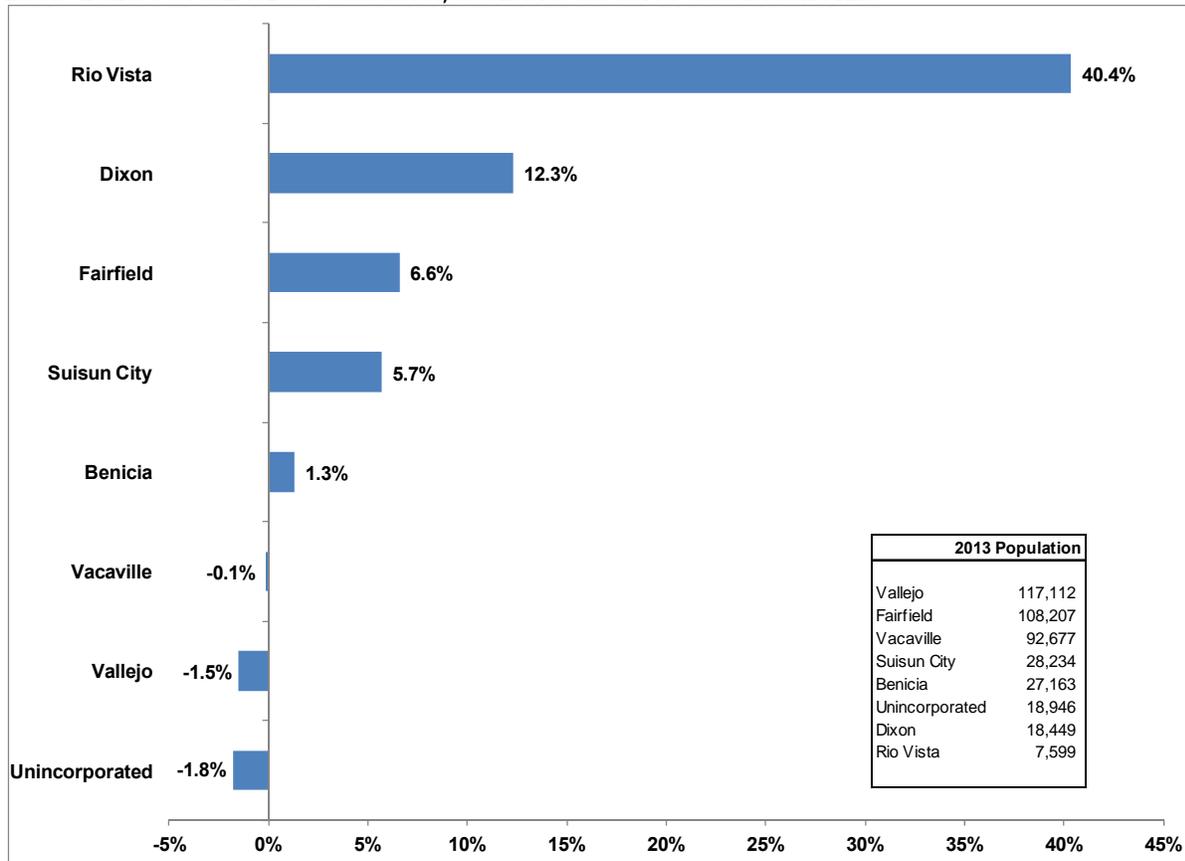
SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Solano County’s communities (both incorporated and unincorporated) range in size from just around 250 (Elmira) to over 117,000 (Vallejo). From the incorporated cities, the smallest one in terms of population, Rio Vista, experienced the strongest level of growth (around 40 percent) from 2003 to 2013, as presented in Figure 5, which may be due to in-migration of a retiring senior population. Fairfield, the second-largest city with a population of around 108,000, grew almost 7 percent in this time period. Two of the county’s largest cities, Vallejo and Vacaville, showed decreases in their populations, approximately -2 percent and -0.1 percent, respectively. Vallejo has suffered greatly from some of the highest foreclosure rates in the country, which may have decreased its desirability as a place of residence and had an effect on population growth. Vacaville has a large prison population and, similar to other cities with prison facilities, saw a drop in population after the state made efforts to reduce inmates and shift them to county-run facilities.<sup>1</sup>

Unincorporated Community	2011 Population
Allendale	1,968
Elmira	251
Green Valley	1,719
Hartley	2,229

Data Source: U.S. Census Bureau, 2007-2011 American Community Survey

FIGURE 5  
2003-2013 POPULATION GROWTH, SOLANO COUNTY COMMUNITIES

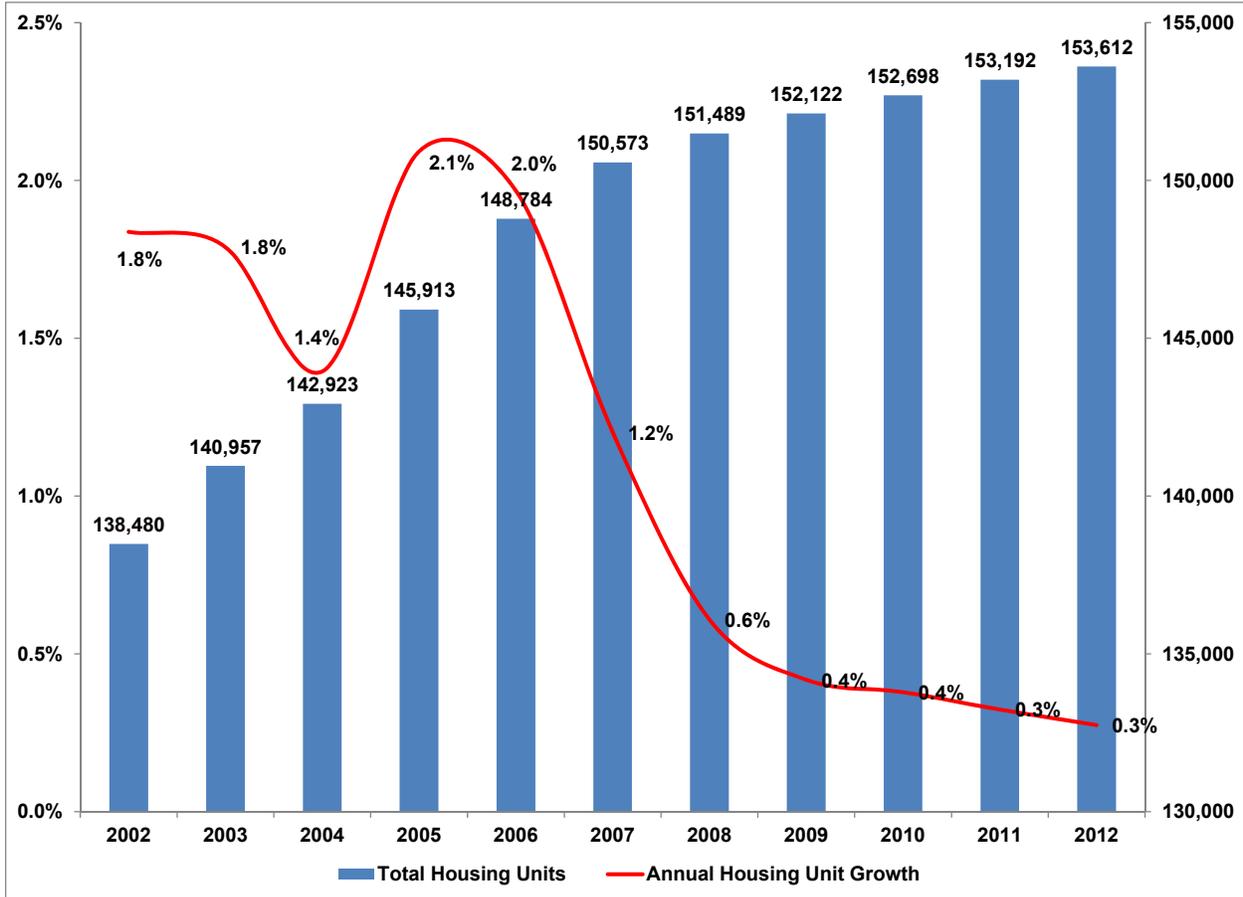


Center for Strategic Economic Research, October 2013  
Data Source: California Department of Finance E-1: City/County Population Estimates with Annual Percent Change January 1, 2012 and 2013

<sup>1</sup> “Bay Area growth keys California’s population boost,” *The Reporter*, May 2, 2013, [http://www.thereporter.com/ci\\_23154125/bay-area-growth-keys-californias-population-boost](http://www.thereporter.com/ci_23154125/bay-area-growth-keys-californias-population-boost).

Figure 6 shows that Solano County had nearly 154,000 housing units in 2012, which is an increase of nearly 11 percent since 2002. Annual average growth since a recent peak in 2005 has declined steadily every year (as a result of the downturn in the housing market from the recession) with the most recent year-over-year growth registering at just 0.3 percent from 2011 to 2012.

FIGURE 6  
SOLANO COUNTY HOUSING UNIT TREND

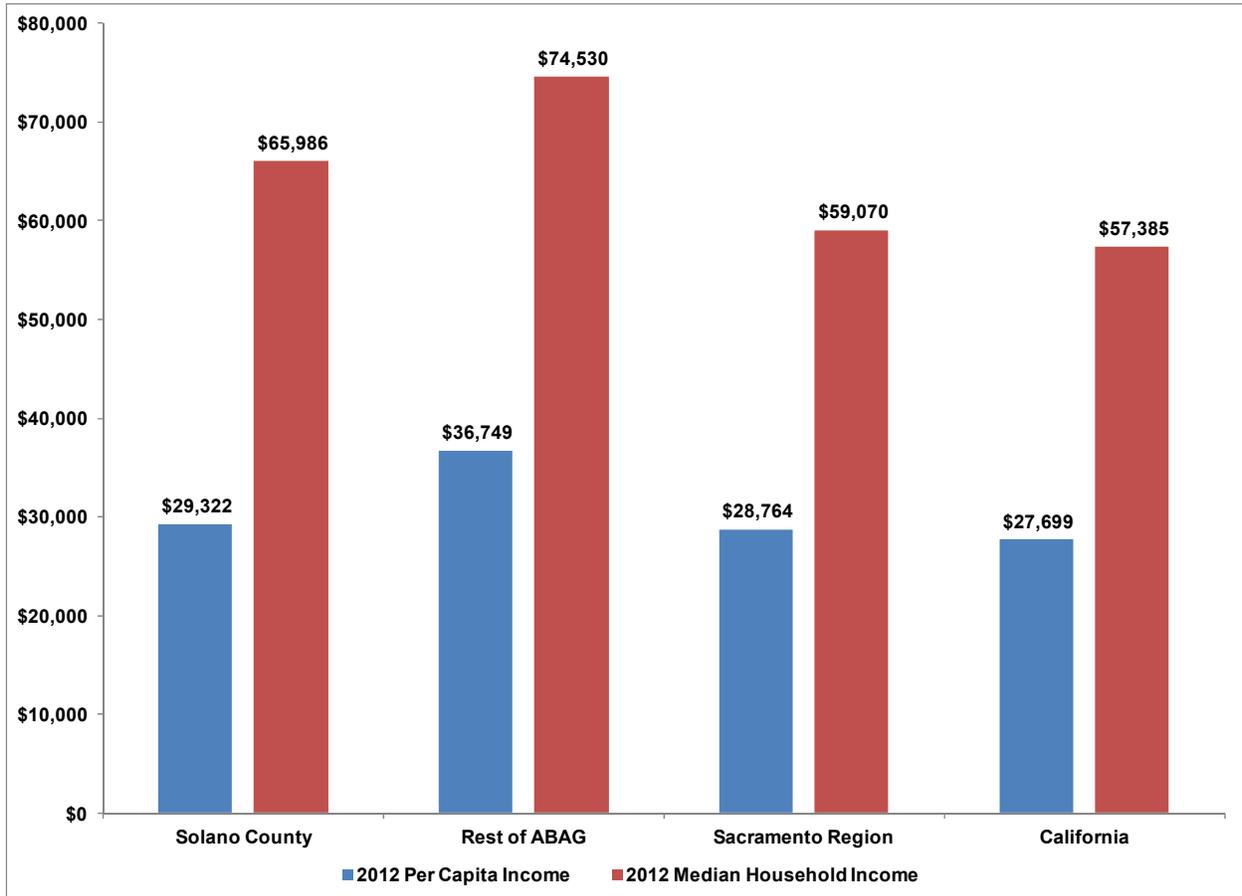


Center for Strategic Economic Research, October 2013  
Data Source: California Department of Finance

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 7 shows that Solano County’s 2012 per capita income of just over \$29,000 was far below the Rest of ABAG’s income of almost \$37,000 and above the Sacramento Region (around \$29,000) and California (about \$28,000). A similar trend is seen with the median household income where the county’s income of approximately \$66,000 is between the Rest of ABAG (around \$75,000) and the Sacramento Region and California (between about \$57,000 and \$59,000).

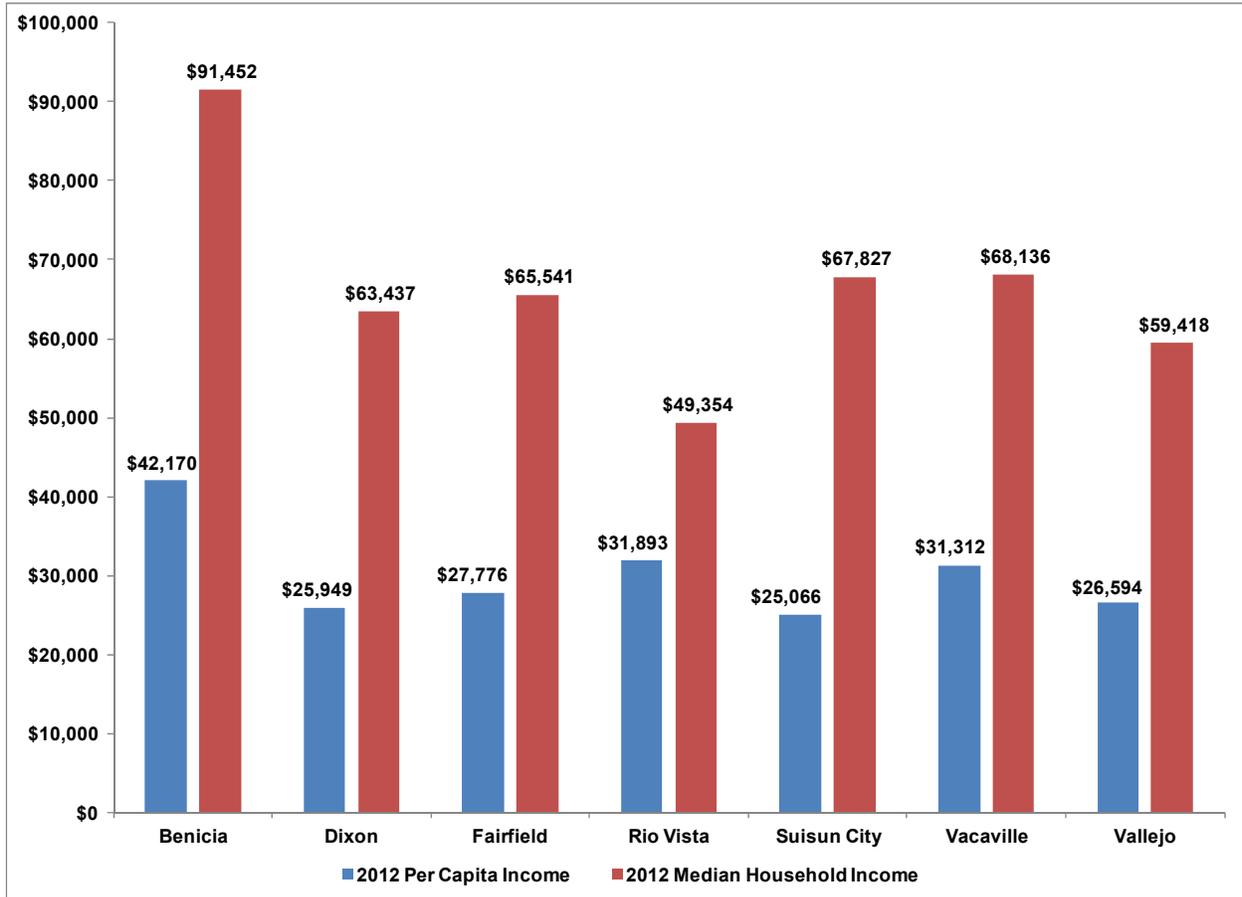
**FIGURE 7**  
**2012 PER CAPITA AND MEDIAN HOUSEHOLD INCOME LEVELS**



Center for Strategic Economic Research, October 2013  
 Data Source: ESRI Business Analyst Online, 2012 Demographic and Income Profile

Benicia’s 2012 per capita (\$42,000) and median household income (\$91,000) levels exceed the other communities in Solano County, as displayed in Figure 8. The other communities range between around \$25,000 and \$32,000 for per capita income and \$49,000 and \$68,000 for median household income.

FIGURE 8  
2012 PER CAPITA AND MEDIAN HOUSEHOLD INCOME LEVELS,  
SOLANO COUNTY COMMUNITIES



Center for Strategic Economic Research, October 2013

Data Source: ESRI Business Analyst Online, 2012 Demographic and Income Profile

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 9 provides index scores of various cost categories relative to the national average of 100. Overall, the communities in the county have a similar index of cost of living in comparison to communities in the Rest of ABAG and Sacramento Region. Benicia is the exception, where its overall index of 139 is quite a bit higher than other Solano County communities and the Sacramento Region and just above that of Oakland located in the Rest of ABAG area. This is in line with Benicia's higher levels of income relative to other communities in the county. The Solano County communities' housing index levels are relatively low, again with the exception of Benicia.

**FIGURE 9  
COST OF LIVING INDICES**

<i>Cost of Living Indexes</i>	<i>Benicia</i>	<i>Dixon</i>	<i>Fairfield</i>	<i>Rio Vista</i>	<i>Suisun City</i>	<i>Vacaville</i>	<i>Vallejo</i>	<i>Oakland</i>	<i>San Francisco</i>	<i>San Jose</i>	<i>Roseville</i>	<i>Sacramento</i>
Overall	139	116	115	110	109	119	106	135	199	168	125	111
Food	112	112	112	112	112	112	112	115	114	116	112	111
Housing	210	131	125	107	105	141	94	194	425	314	161	110
Utilities	112	112	112	112	112	112	112	92	92	129	113	114
Transportation	111	111	111	111	111	111	111	112	110	112	113	113
Health	112	112	112	112	112	112	112	111	111	118	108	112
Miscellaneous	109	109	109	109	109	109	109	118	116	101	110	108

Center for Strategic Economic Research, October 2013

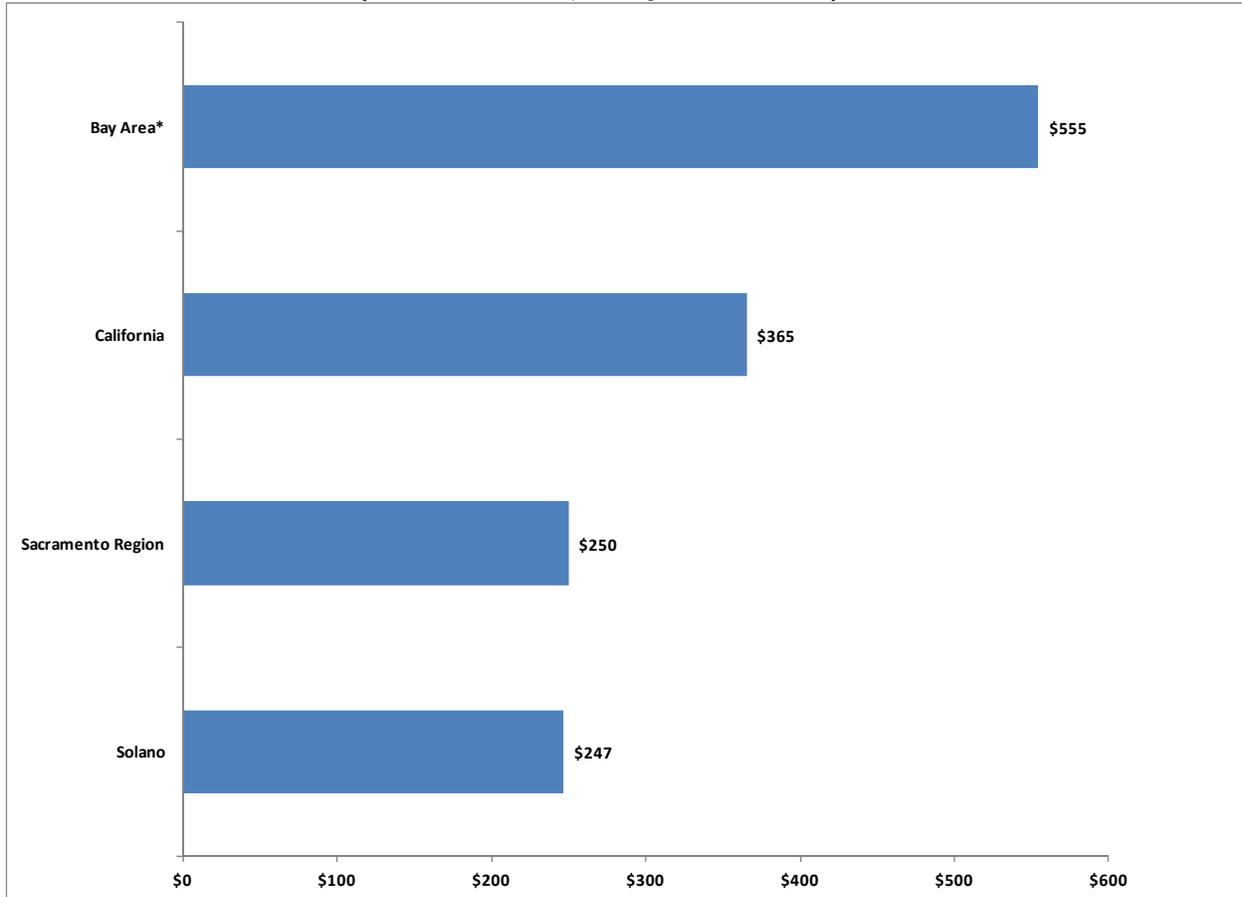
Data Source: Sperling's Best Places

Notes: As of June 2012. A score of 100 equals the national average.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

In the second quarter of 2013, Solano County’s median home sale price was \$247,000, just below the Sacramento Region’s average of \$250,000 and far below the Bay Area’s and California’s median prices of \$555,000 and \$365,000, respectively (Figure 10).

FIGURE 10  
MEDIAN HOME SALE PRICE (IN THOUSANDS; 2<sup>nd</sup> QUARTER 2013)



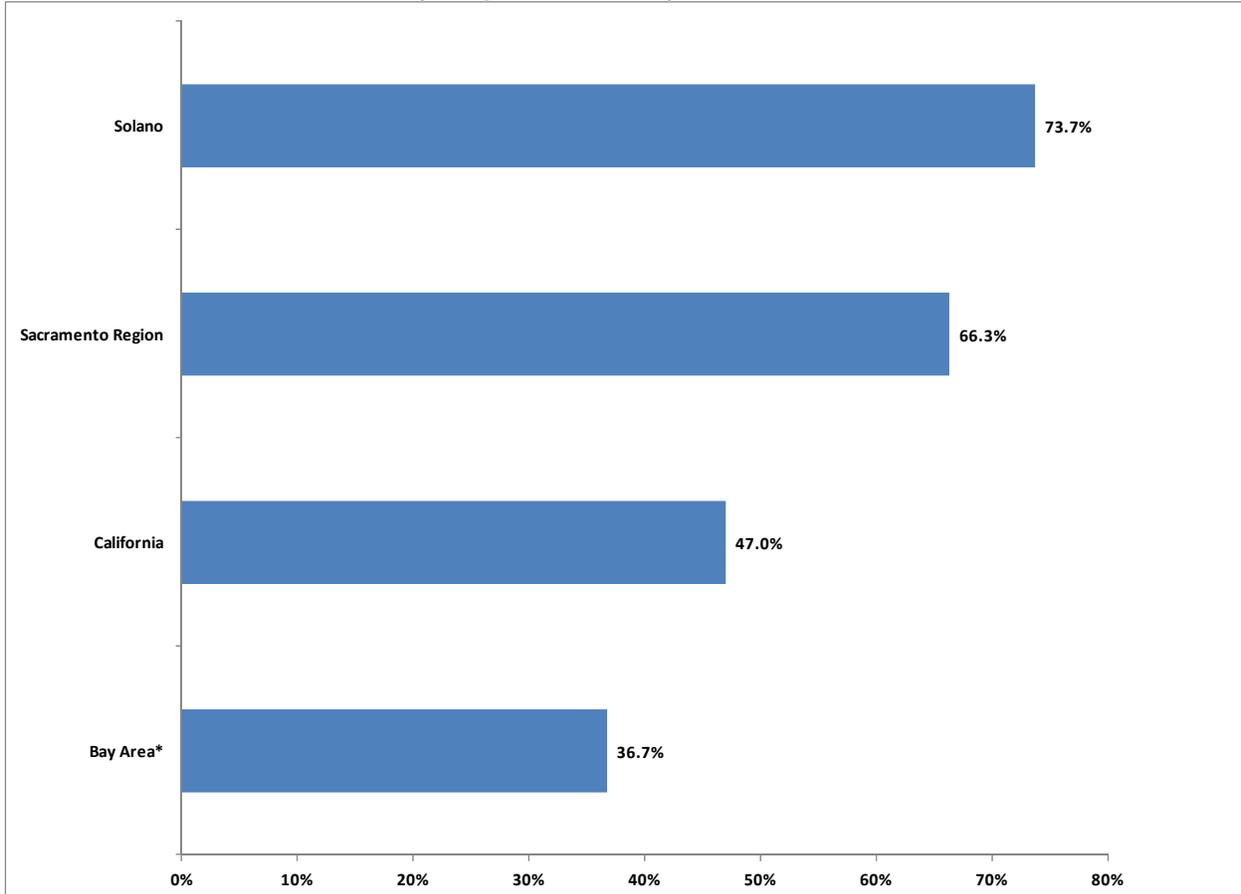
Center for Strategic Economic Research, October 2013

Data Source: National Association of Home Builders-Wells Fargo Housing Opportunity Index

\*Includes San Benito County as it is part of the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area.

Figure 11 shows that Solano County provides affordable housing opportunities for a greater percentage of households earning the median income than all of the comparison areas. Nearly 74 percent of homes sold during the second quarter of 2013 in the county would have been affordable to a family earning the median income in comparison to around 66 percent, 47 percent, and 37 percent of homes sold in the Sacramento Region, California, and the Bay Area, respectively.

FIGURE 11  
HOUSING OPPORTUNITY INDEX (2<sup>nd</sup> QUARTER 2013)



Center for Strategic Economic Research, October 2013

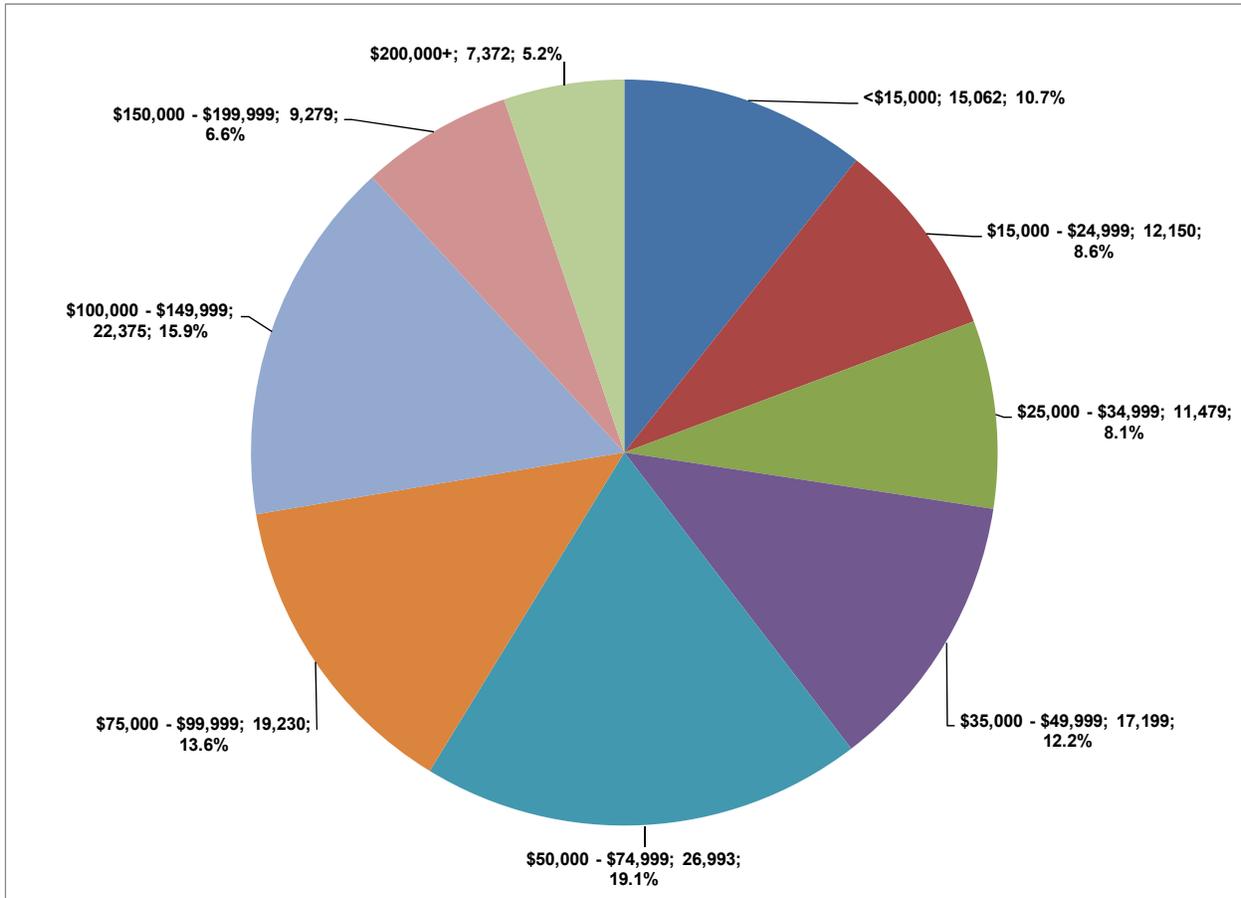
Data Source: National Association of Home Builders-Wells Fargo Housing Opportunity Index

\*Includes San Benito County as it is part of the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area.

Note: Housing Opportunity Index reflects the share of homes sold during the represented quarter that would have been affordable to a family earning the median income.

Figure 12 provides the distribution of Solano County’s household income levels in 2012. With about 19 percent of the total household population, the largest segment is in the \$50,000-\$74,999 household income groups. The \$100,000-\$149,999 and \$75,000-\$99,999 income groups are the second and third largest, respectively around 16 percent and 14 percent. The \$75,000-\$99,999 income group also saw the largest shift in composition since 2007 declining around 3 percentage points. All income groups between \$50,000 and \$149,000 actually experienced negative shifts in composition in this time period. The under \$15,000 income group saw the largest positive shift, just over 2 percentage points from 2007 to 2012.

FIGURE 12  
2012 SOLANO COUNTY HOUSEHOLD INCOME DISTRIBUTION



Center for Strategic Economic Research, October 2013  
Data Source: U.S. Census Bureau, American Community Survey, 2012 American Community Survey 1-Year Estimates

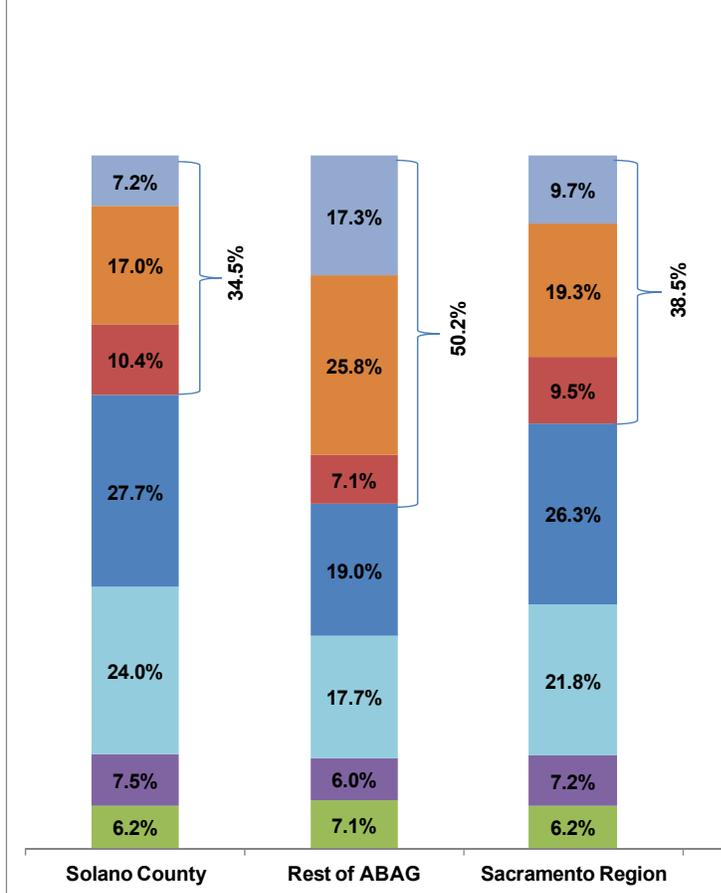
## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Almost 35 percent of Solano County residents (age 25 and above) have attained an Associate degree or higher educational level, as illustrated in Figure 13. This is a much lower proportion than the Rest of ABAG, Sacramento Region, and statewide averages. The county also has the lowest proportion of students enrolled in college or higher (see table to the right), almost 8 percent compared to approximately 9 percent in the comparison areas. Of the county's communities, Fairfield, Benicia, Vacaville, and Vallejo have the largest proportion of students enrolled in college (between 8 and 9 percent).

Area	Students	
	Enrolled in College or Higher	% of Total Population
Solano County	30,665	7.7%
Rest of ABAG	563,802	8.8%
Sacramento Region	202,921	9.2%
California	3,039,986	8.6%
Benicia	2,075	7.9%
Dixon	706	4.1%
Fairfield	8,668	8.7%
Rio Vista	423	6.0%
Suisun City	1,897	7.1%
Vacaville	6,990	7.9%
Vallejo	8,811	7.9%

**FIGURE 13**  
2011 EDUCATIONAL ATTAINMENT

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates



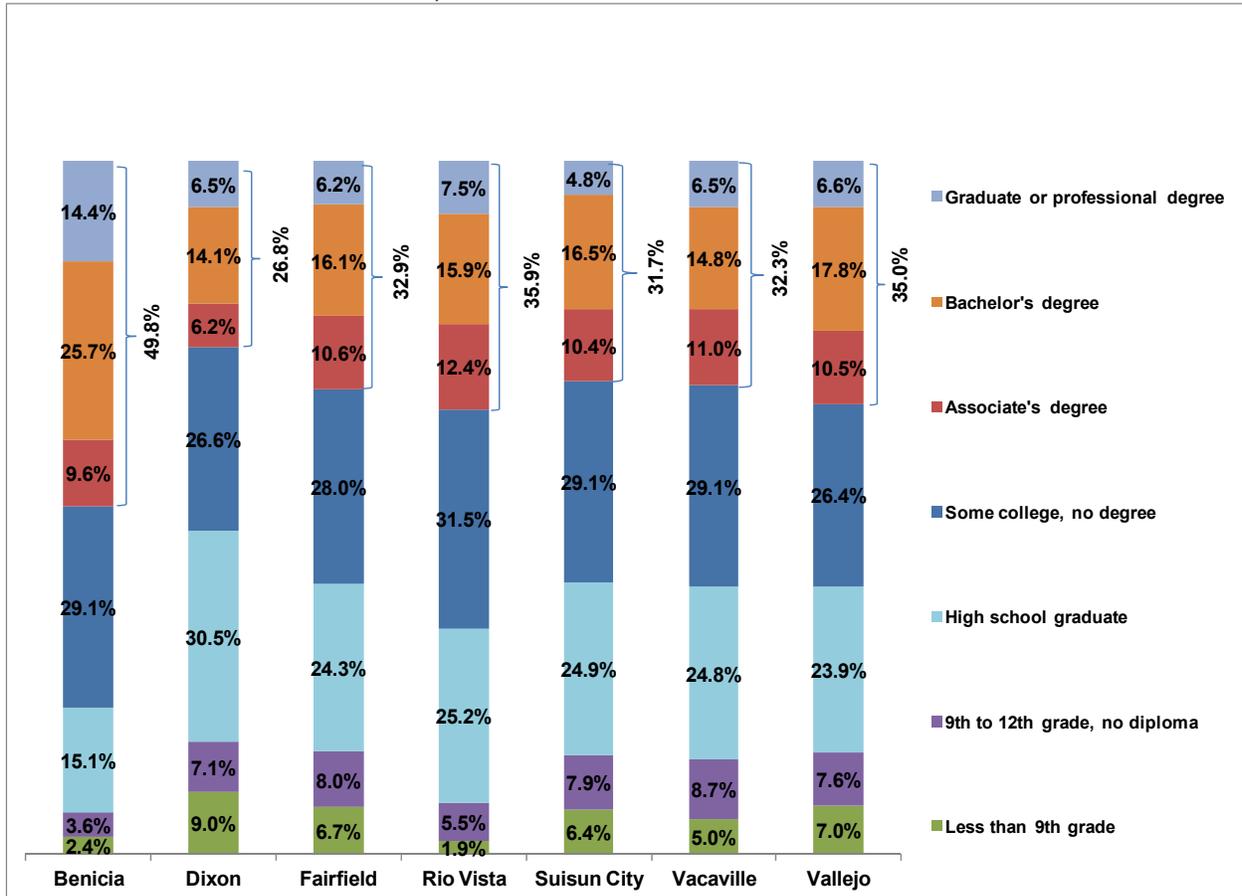
Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Figure 14 shows that nearly 50 percent of Benicia residents (age 25 and above) have attained an Associate degree or higher—a proportion similar to that of the Rest of ABAG overall. This proportion is much greater than the remaining Solano County communities, which range between around 27 percent and 36 percent.

FIGURE 14  
2011 EDUCATIONAL ATTAINMENT, SOLANO COUNTY COMMUNITIES



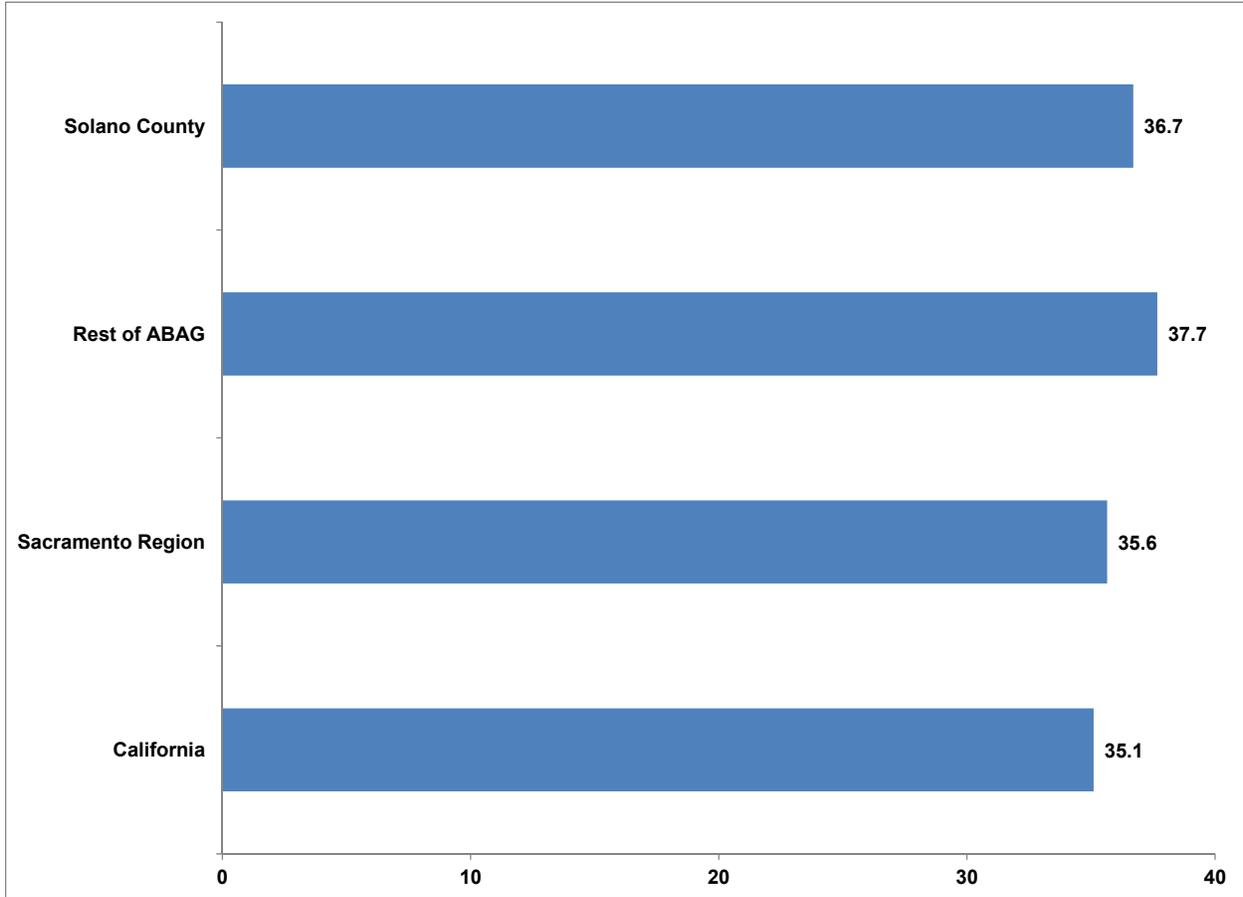
Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

The median age in Solano County, as shown in Figure 15, is around 37 which is between the median ages of the comparison areas, California (about 35), Sacramento Region (almost 36), and the Rest of ABAG (close to 38).

FIGURE 15  
MEDIAN AGE

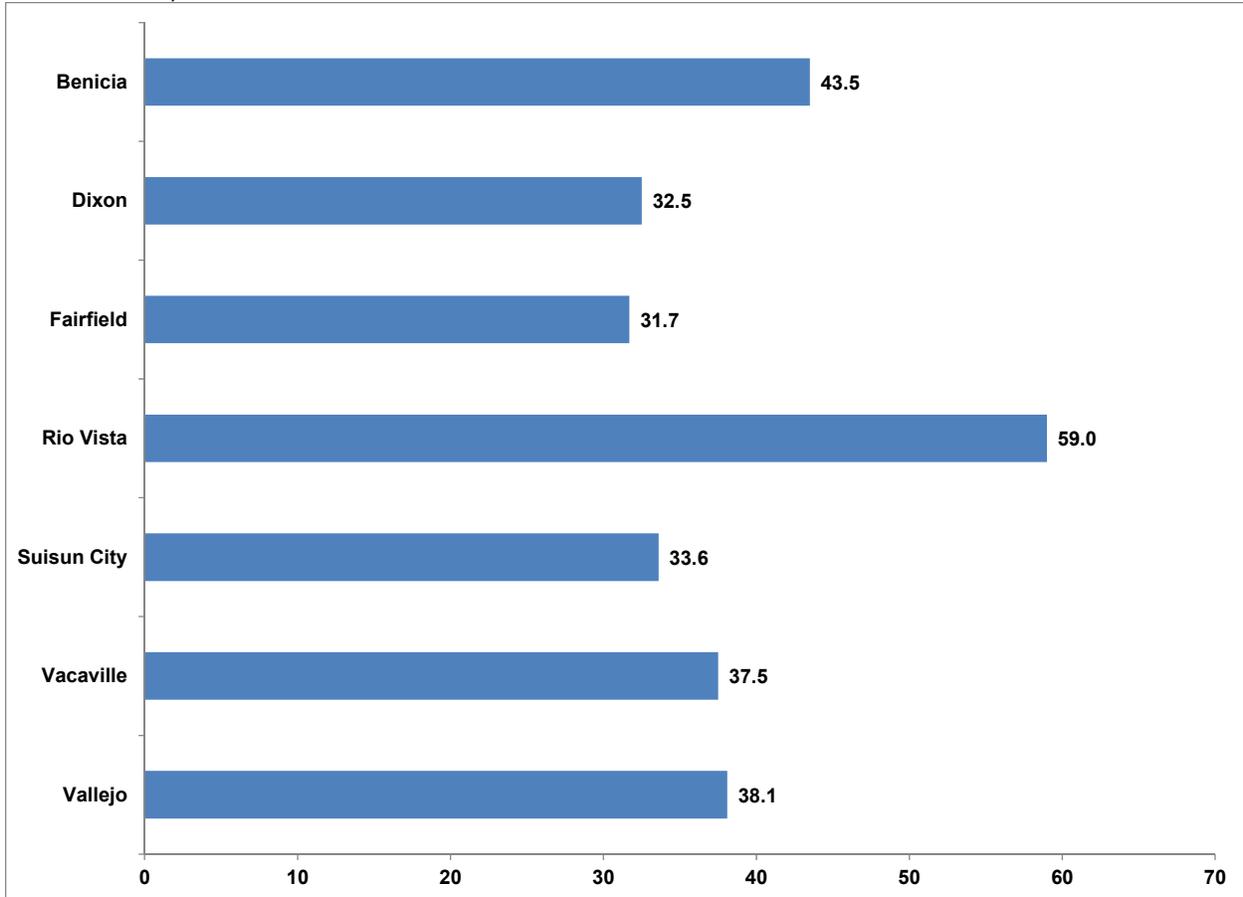


Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Median ages of Solano County communities (Figure 16) range from almost 32 in Fairfield to 59 in Rio Vista.

FIGURE 16  
MEDIAN AGE, SOLANO COUNTY COMMUNITIES

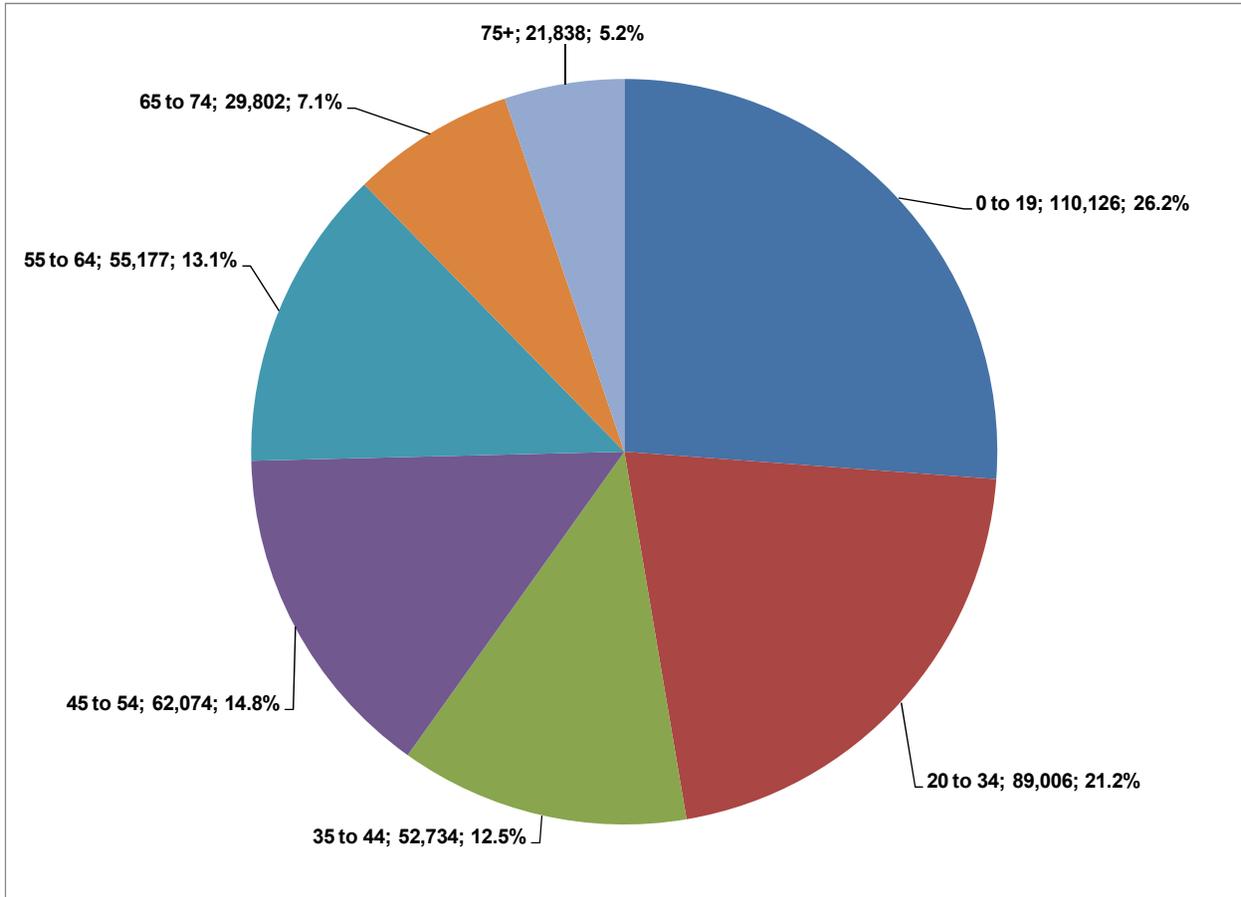


Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Figure 17 shows that the greatest proportion of Solano County’s population is represented in the 0 to 19 (around 26 percent); 20 to 34 (about 21 percent); and 45 to 54 age (nearly 15 percent) brackets. With approximately 13 percent each, the 35 to 44 and 55 to 64 age brackets also constitute a large share of the county’s population. Over the five-year period from 2007 to 2012, the county’s 0 to 19 and 35 to 44 age brackets each saw a -2 percentage point shift in their shares of the population while the 55 to 64 group increased its share by nearly 3 percentage points.

FIGURE 17  
SOLANO COUNTY AGE COMPOSITION



Center for Strategic Economic Research, October 2013  
Data Source: U.S. Census Bureau, American Community Survey, 2012 American Community Survey 1-Year Estimates

Solano County had a 2011 labor force of almost 182,000 people. The county's total labor force includes civilian labor force only (and excludes active duty personnel), but according to Travis Air Force Base's 2012 Economic Impact Analysis, the base has a workforce totaling 13,409 people with over 10,000 of them classified as active duty military members or Air Force Reservists.

Figure 18 depicts occupations held by working residents of Solano County, the Rest of ABAG, the Sacramento Region, and California. The top occupations among Solano County residents are in the Office and Administrative Support; Sales & Related; Management; Construction & Extraction; and Transportation & Material Moving categories which, combined, make up approximately 47 percent of employment, are held by nearly 86,000 residents, and require a mix of training levels from low to high. The Rest of ABAG, the Sacramento Region, and California share the same top three occupational categories while the fourth- and fifth-ranked categories vary among the regions with Education, Training & Library and Business & Financial Operations in the Rest of ABAG and the Sacramento Region and Transportation & Material Moving and Education, Training, & Library in California. A larger proportion of the county residents are employed in occupational categories classified as low- or medium-skilled relative to the comparison areas; only about 34 percent of residents are employed in high-skilled occupational categories while this proportion in the comparison areas ranges from around 37 percent (California) to nearly 46 percent (Rest of ABAG).

**FIGURE 18**  
**RESIDENT EMPLOYMENT AND COMPOSITION BY OCCUPATION**  
**(SORTED BY CATEGORY NAME)**

<i>Major Occupational Category</i>	<i>Solano County</i>		<i>Rest of ABAG</i>	<i>Sacramento Region</i>	<i>California</i>	<i>Training Level</i>
	<i>Total Employment</i>	<i>Composition</i>				
Architecture & Engineering	3,063	1.7%	3.5%	2.2%	2.2%	High
Arts, Design, Entertainment, Sports, & Media	2,360	1.3%	2.7%	1.7%	2.6%	High
Building & Grounds Cleaning & Maintenance	7,229	4.0%	4.0%	3.8%	4.4%	Low
Business & Financial Operations	9,041	5.0%	6.3%	5.7%	5.0%	High
Community & Social Services	3,242	1.8%	1.4%	1.7%	1.5%	High
Computer & Mathematical	3,605	2.0%	5.5%	3.4%	2.8%	High
Construction & Extraction	10,658	5.9%	4.4%	5.0%	5.1%	Medium
Education, Training, & Library	9,086	5.0%	5.5%	5.6%	5.6%	High
Farming, Fishing, & Forestry	1,672	0.9%	0.4%	0.8%	1.6%	Low
Food Preparation & Serving-Related	8,980	4.9%	4.9%	5.3%	5.2%	Low
Healthcare Practitioners & Technical	9,939	5.5%	4.8%	4.9%	4.5%	High
Healthcare Support	5,004	2.8%	1.8%	2.1%	1.9%	Low
Installation, Maintenance, & Repair	6,520	3.6%	2.4%	3.1%	3.0%	Medium
Legal	1,613	0.9%	1.7%	1.3%	1.3%	High
Life, Physical, & Social Science	1,653	0.9%	1.7%	1.2%	1.0%	High
Management	17,479	9.6%	12.5%	10.3%	10.0%	High
Office & Administrative Support	27,713	15.2%	12.3%	15.3%	13.6%	Low
Personal Care & Service	6,996	3.8%	3.9%	4.3%	4.2%	Low
Production	9,558	5.3%	4.0%	3.5%	5.3%	Low
Protective Service	6,607	3.6%	1.6%	2.5%	2.2%	Medium
Sales & Related	19,144	10.5%	10.7%	11.2%	11.4%	Low
Transportation & Material Moving	10,563	5.8%	4.0%	5.1%	5.6%	Low

Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Note: High training level = four-year degree or above plus work experience; medium = considerable on-the-job training, vocational education, or a two-year degree; low = some on-the-job training and high school-level education. Based on "O\*Net" job zones.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Occupations held by working residents of Solano County communities are shown in Figure 19. All of the communities, except for Rio Vista and Suisun City, share the same top three occupational categories than Solano County: Office & Administrative Support; Management; and Sales & Related. Rio Vista shares the former two top categories, but Construction & Extraction rounds out its top three. Office & Administrative Support and Sales & Related are also Suisun City's top two categories while Healthcare Practitioners & Technical ranks third.

**FIGURE 19**  
**RESIDENT EMPLOYMENT COMPOSITION BY OCCUPATION,**  
**SOLANO COUNTY COMMUNITIES (SORTED BY CATEGORY NAME)**

Major Occupational Category	Benicia	Dixon	Fairfield	Rio Vista	Suisun			Training Level
					City	Vacaville	Vallejo	
Architecture & Engineering	1.6%	1.4%	2.2%	2.3%	2.5%	1.2%	1.5%	High
Arts, Design, Entertainment, Sports, & Media	1.9%	0.9%	0.9%	3.5%	0.5%	1.5%	1.6%	High
Building & Grounds Cleaning & Maintenance	1.8%	3.7%	4.2%	2.6%	5.9%	2.6%	5.2%	Low
Business & Financial Operations	7.0%	4.9%	4.3%	5.9%	4.6%	4.6%	5.2%	High
Community & Social Services	2.2%	0.9%	1.8%	2.9%	1.2%	2.3%	1.7%	High
Computer & Mathematical	2.4%	1.5%	1.6%	0.5%	2.1%	2.0%	2.6%	High
Construction & Extraction	5.6%	6.7%	6.0%	11.5%	6.1%	6.2%	5.2%	Medium
Education, Training, & Library	8.1%	6.4%	4.0%	6.3%	2.9%	5.6%	4.5%	High
Farming, Fishing, & Forestry	0.7%	1.3%	1.0%	3.8%	0.3%	0.4%	0.5%	Low
Food Preparation & Serving-Related	4.0%	5.6%	5.0%	2.4%	4.6%	6.1%	4.2%	Low
Healthcare Practitioners & Technical	6.7%	4.1%	4.6%	6.0%	7.4%	5.3%	5.8%	High
Healthcare Support	1.0%	1.5%	2.5%	1.4%	2.3%	2.2%	4.2%	Low
Installation, Maintenance, & Repair	1.8%	4.9%	3.4%	3.2%	5.6%	3.6%	3.5%	Medium
Legal	1.8%	0.7%	0.8%	0.0%	0.8%	0.6%	0.9%	High
Life, Physical, & Social Science	1.5%	1.1%	0.8%	0.0%	0.7%	0.8%	1.0%	High
Management	13.9%	9.7%	9.9%	12.0%	5.9%	9.2%	8.6%	High
Office & Administrative Support	12.0%	16.3%	16.7%	12.9%	15.4%	14.4%	16.2%	Low
Personal Care & Service	3.8%	2.1%	3.8%	3.2%	4.6%	4.3%	4.0%	Low
Production	3.5%	5.6%	6.6%	3.9%	6.4%	5.3%	4.6%	Low
Protective Service	2.9%	3.7%	3.7%	3.6%	2.5%	5.6%	2.7%	Medium
Sales & Related	13.4%	9.3%	10.5%	7.0%	11.5%	10.7%	9.8%	Low
Transportation & Material Moving	2.4%	7.7%	5.8%	5.2%	6.2%	5.6%	6.5%	Low

Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Note: High training level = four-year degree or above plus work experience; medium = considerable on-the-job training, vocational education, or a two-year degree; low = some on-the-job training and high school-level education. Based on "O\*Net" job zones.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

As shown in Figure 20, over half (roughly 51 percent) or around 92,000 of the employed residents within Solano County were employed in the Health Care & Social Assistance; Retail Trade; Manufacturing; Public Administration; and Educational Services sectors. Three of these sectors are also the top industry employers in the county. The exception is Manufacturing and Educational Services which account for a smaller share of industry employment and may account for some of the residents' commuting patterns to work in these sectors outside of the county. The Rest of ABAG and California share the county's top three industry categories (Health Care & Social Assistance, Retail Trade; and Manufacturing), but the remaining top categories are within the Educational Services and Professional, Scientific, & Technical Services sectors. The Sacramento Region shares the county's top two industry sectors, but Educational Services and Professional, Scientific, & Technical Services (similar to the Rest of ABAG and California) as well as Construction are represented in its top five.

**FIGURE 20  
RESIDENT EMPLOYMENT COMPOSITION BY INDUSTRY  
(SORTED BY SOLANO COUNTY EMPLOYMENT)**

<i>Major Industry Sector</i>	<i>Solano County</i>		<i>Rest of</i>	<i>Sacramento</i>	
	<i>Total Employment</i>	<i>Composition</i>	<i>ABAG</i>	<i>Region</i>	<i>California</i>
Health Care & Social Assistance	26,840	14.8%	12.1%	13.0%	11.9%
Retail Trade	20,825	11.5%	10.2%	11.4%	11.0%
Manufacturing	16,789	9.2%	11.4%	6.0%	10.2%
Public Administration	14,129	7.8%	3.5%	9.9%	4.7%
Educational Svcs.	13,767	7.6%	8.3%	8.9%	8.6%
Construction	12,905	7.1%	5.9%	7.1%	6.6%
Accom. & Food Svcs.	11,875	6.5%	6.4%	6.5%	6.9%
Transportation & Warehousing	9,516	5.2%	3.5%	3.7%	3.9%
Prof., Sci., & Technical Svcs.	8,790	4.8%	11.9%	6.7%	7.6%
Finance & Insurance	8,697	4.8%	4.9%	5.1%	4.3%
Other Svcs.	7,912	4.4%	5.0%	4.9%	5.3%
Admin. & Waste Svcs.	7,345	4.0%	4.5%	4.6%	4.7%
Wholesale Trade	4,982	2.7%	2.7%	2.7%	3.3%
Real Estate & Rental & Leasing	4,330	2.4%	2.5%	2.4%	2.4%
Arts, Ent., & Recreation	4,011	2.2%	2.1%	2.3%	2.5%
Information	3,832	2.1%	3.5%	2.3%	2.9%
Agriculture, Forestry, Fishing, & Hunting	2,575	1.4%	0.7%	1.3%	2.1%
Utilities	2,140	1.2%	0.7%	1.1%	0.8%
Natural Resources & Mining	390	0.2%	0.1%	0.1%	0.2%
Mgmt. of Companies	75	0.0%	0.1%	0.0%	0.1%

Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

The Health Care & Social Assistance; Retail Trade; and Manufacturing sectors each employ a large proportion of residents in each respective Solano County community, as shown in Figure 21. Other sectors which employ relatively large proportions of the communities' residents are Educational Services; Construction; and Public Administration. Rio Vista is the only community with the Accommodation & Food Services sector ranking in its top five.

**FIGURE 21  
RESIDENT EMPLOYMENT COMPOSITION BY INDUSTRY,  
SOLANO COUNTY COMMUNITIES (SORTED BY VALLEJO COMPOSITION)**

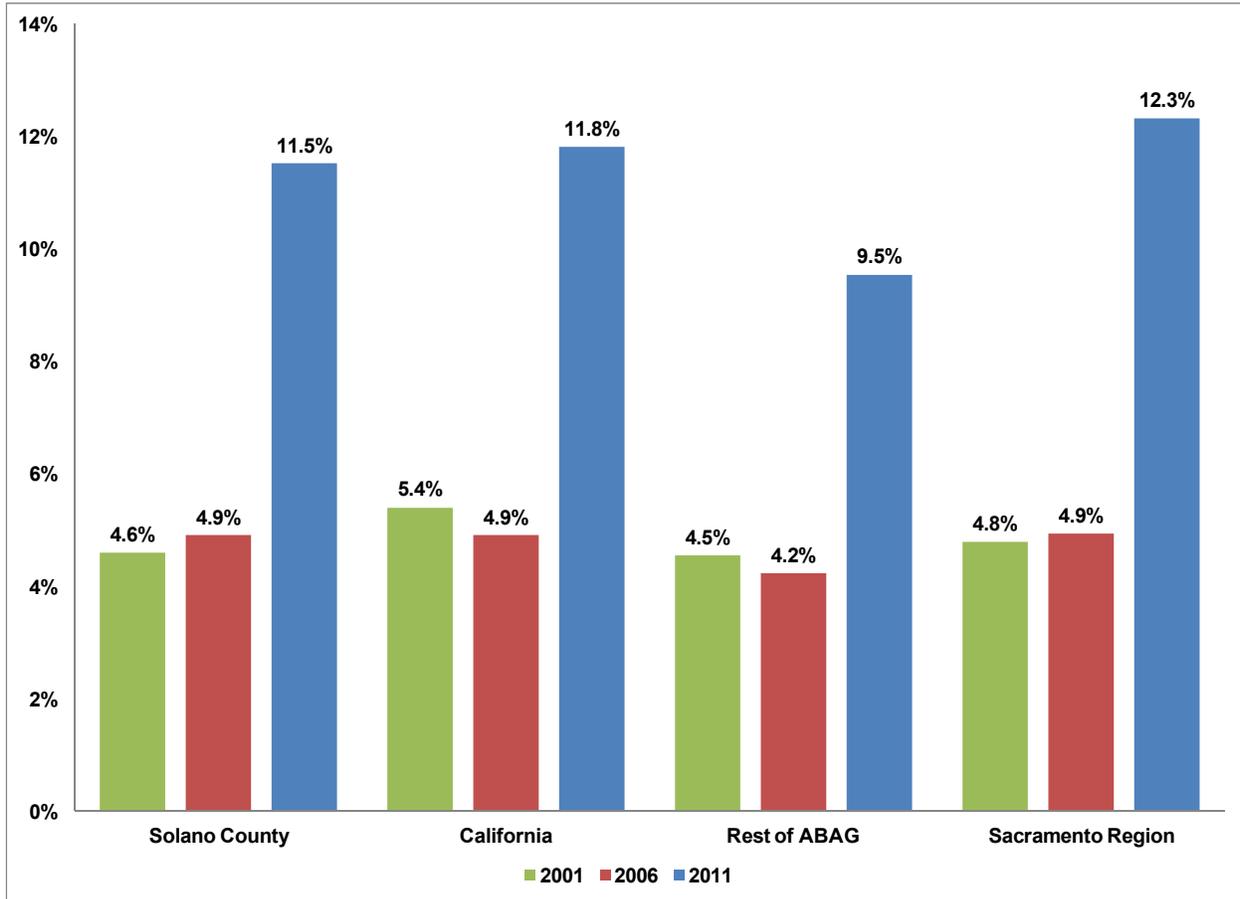
<i>Major Industry Sector</i>	<i>Suisun</i>						
	<i>Benicia</i>	<i>Dixon</i>	<i>Fairfield</i>	<i>Rio Vista</i>	<i>City</i>	<i>Vacaville</i>	<i>Vallejo</i>
Health Care & Social Assistance	13.7%	9.0%	14.8%	6.1%	16.3%	14.0%	17.0%
Retail Trade	10.1%	10.7%	12.2%	11.3%	14.7%	12.3%	9.8%
Manufacturing	8.7%	9.8%	9.8%	6.0%	8.7%	9.2%	9.2%
Educational Svcs.	10.0%	11.2%	6.3%	10.1%	6.1%	7.7%	7.3%
Transportation & Warehousing	3.2%	4.6%	4.8%	3.0%	6.6%	4.5%	7.0%
Construction	8.1%	8.8%	7.0%	9.3%	7.9%	7.1%	6.2%
Accom. & Food Svcs.	4.6%	7.9%	6.9%	7.0%	6.0%	7.1%	6.1%
Finance & Insurance	5.4%	4.3%	5.0%	3.7%	3.5%	4.1%	6.0%
Public Administration	4.9%	9.1%	8.6%	6.4%	7.0%	11.6%	5.3%
Prof., Sci., & Technical Svcs.	6.9%	4.1%	4.2%	5.1%	3.1%	4.6%	5.3%
Other Svcs.	4.6%	2.1%	4.0%	4.8%	4.0%	4.5%	5.2%
Admin. & Waste Svcs.	2.2%	3.7%	3.9%	6.2%	4.9%	3.3%	4.9%
Arts, Ent., & Recreation	3.6%	1.1%	2.4%	1.6%	1.8%	1.9%	2.3%
Real Estate & Rental & Leasing	3.0%	1.4%	2.7%	1.4%	2.3%	2.0%	2.2%
Information	4.2%	2.5%	1.7%	0.9%	2.8%	1.7%	2.1%
Wholesale Trade	3.8%	5.3%	3.1%	4.4%	2.8%	2.5%	2.0%
Utilities	1.1%	2.3%	0.8%	3.8%	1.2%	1.3%	1.0%
Agriculture, Forestry, Fishing, & Hunting	1.6%	2.2%	1.3%	6.7%	0.4%	0.3%	0.9%
Natural Resources & Mining	0.3%	0.0%	0.4%	2.2%	0.1%	0.2%	0.1%
Mgmt. of Companies	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%

Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Figure 22 shows that, with an estimated unemployment rate of 11.5, Solano County fares slightly better than California (11.8 percent) and between the Rest of ABAG (9.5 percent) and the Sacramento Region (12.3 percent). This is a similar trend as in the historical periods of 2001 and 2006. The high level of unemployment relative to previous years shows the effects of the recent recession from which all of the economies are still recovering.

FIGURE 22  
UNEMPLOYMENT RATES

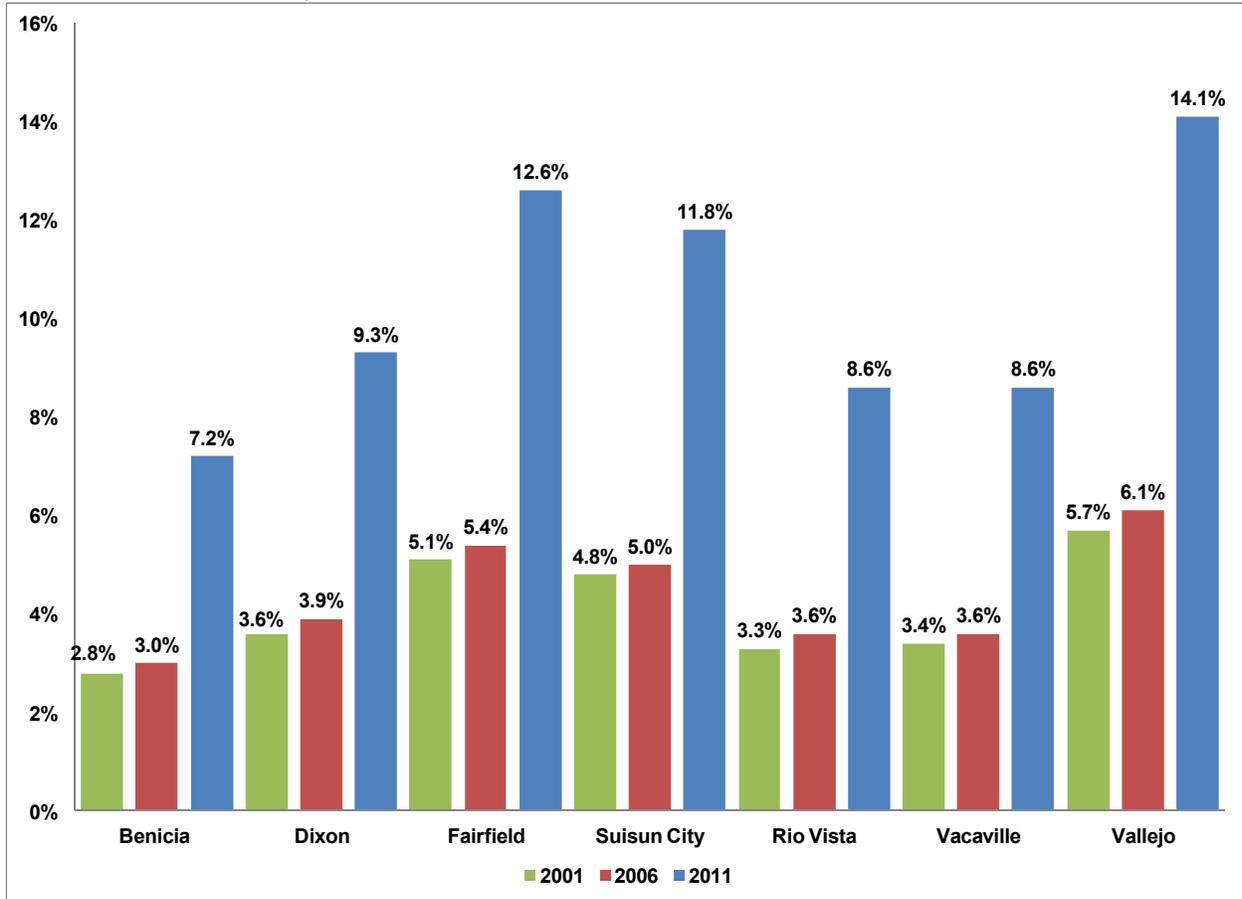


Center for Strategic Economic Research, October 2013

Data Source: California Employment Development Department, Labor Force & Unemployment Data

Figure 23 shows that Solano County communities' unemployment rates range between a low in Benicia of 7.2 percent to a high in Vallejo of 14.1 percent. These two communities accounted for the low and high unemployment rate ranges over the represented historical period.

FIGURE 23  
UNEMPLOYMENT RATES, SOLANO COUNTY COMMUNITIES

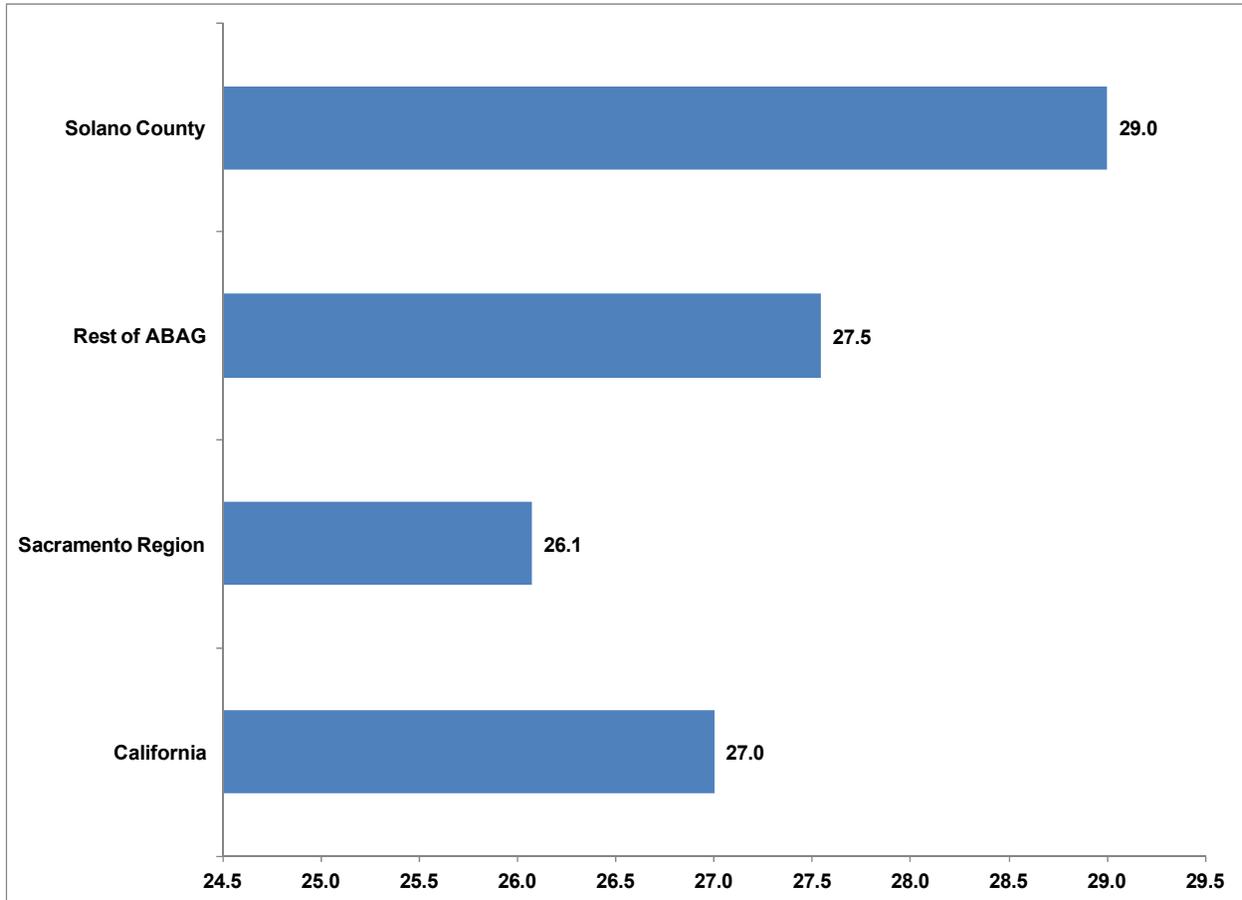


Center for Strategic Economic Research, October 2013

Data Source: California Employment Development Department, Labor Force & Unemployment Data

On average, as shown in Figure 24, Solano County commuters face drives of 29 minutes, significantly higher than average commute times in the Rest of ABAG (27.5 minutes), the Sacramento Region (26.1 minutes), and California (27 minutes). This means that Solano County residents are driving further for work as job opportunities within the county near their residence may be limited. Solano County’s jobs-to-housing balance ratio demonstrates that for every one household, 0.79 jobs are available—far from the ideal regional ratio of 1.50. The Rest of ABAG and the Sacramento Region, although also far from the ideal, have slightly more balanced ratios of 1.20 and 0.93, respectively.

FIGURE 24  
AVERAGE COMMUTE TIMES

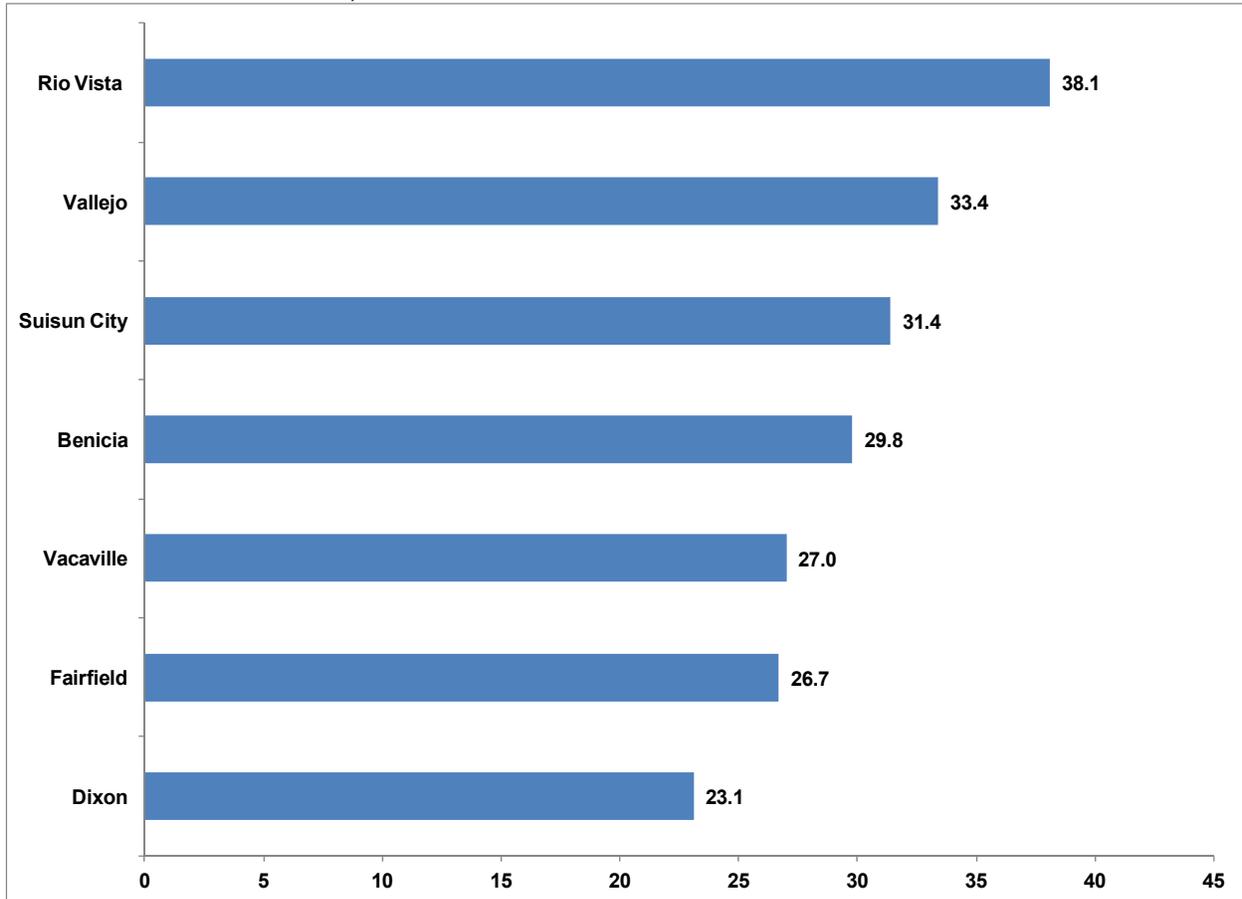


Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Rio Vista and Vallejo drivers experience the longest average commute times among the Solano County communities (38.1 minutes and 33.4 minutes, respectively), as shown in Figure 25. Dixon and Fairfield present the shortest average commute times, 23.1 minutes and 26.7 minutes, respectively.

FIGURE 25  
AVERAGE COMMUTE TIMES, SOLANO COUNTY COMMUNITIES

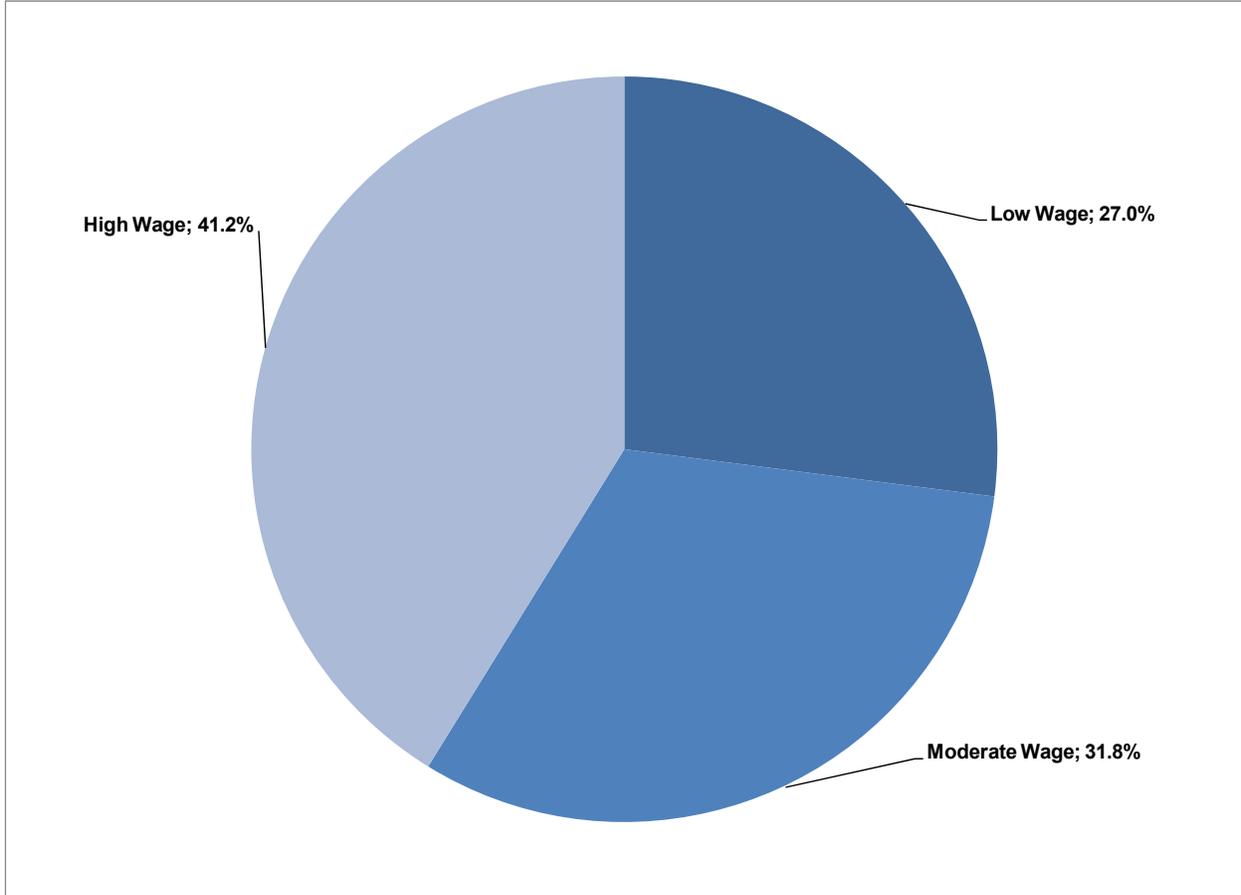


Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates

Approximately 73 percent of the Solano County resident workforce holds jobs that pay a High (more than \$3,333 per month) or Moderate (\$1,251 to \$3,333 per month) wage with the remaining 27 percent earning a low wage (Figure 26).

FIGURE 26  
2007-2011 AVERAGE SOLANO COUNTY RESIDENT WORKFORCE WAGE STRUCTURE



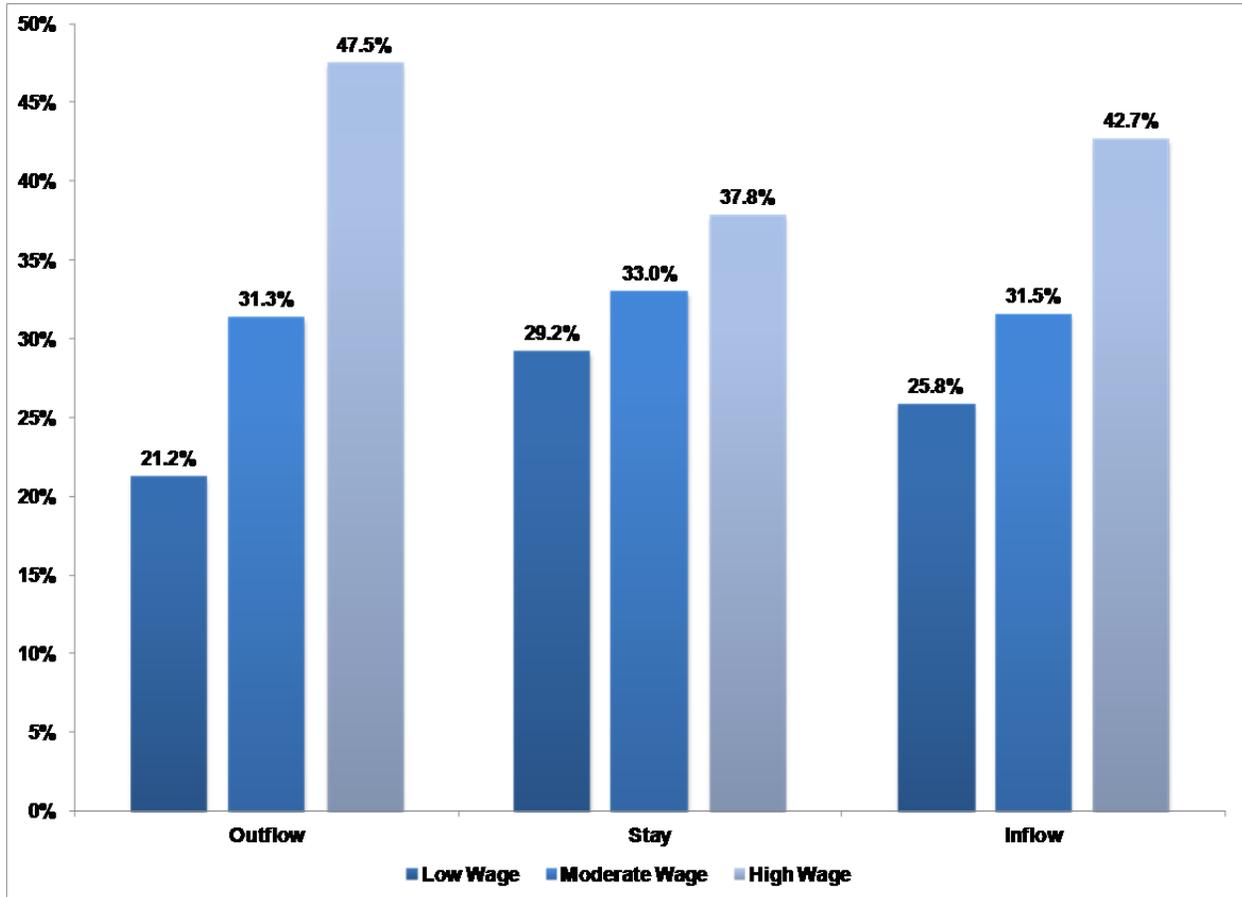
Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2011 Local Employment Dynamics

Note: Low Wage=\$1,250 per month or less; Moderate Wage=\$1,251 to \$3,333 per month; High Wage=more than \$3,333 per month

Around 63 percent of Solano County’s resident workforce leaves the county for work, which contributes to the relatively high commute times. On average from 2007 through 2011, of the total number of residents that left the county, about 55 percent were replaced by workers commuting into the county, revealing a relatively large exodus of the resident workforce. As shown in Figure 27, most of the inflow and outflow activity is related to jobs paying a high wage (and generally requiring higher skills) while the wage structure of jobs aligned with residents that stay in the county is more evenly distributed.

FIGURE 27  
2007-2011 AVERAGE SOLANO COMMUTE PATTERN WAGE STRUCTURE



Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2011 Local Employment Dynamics

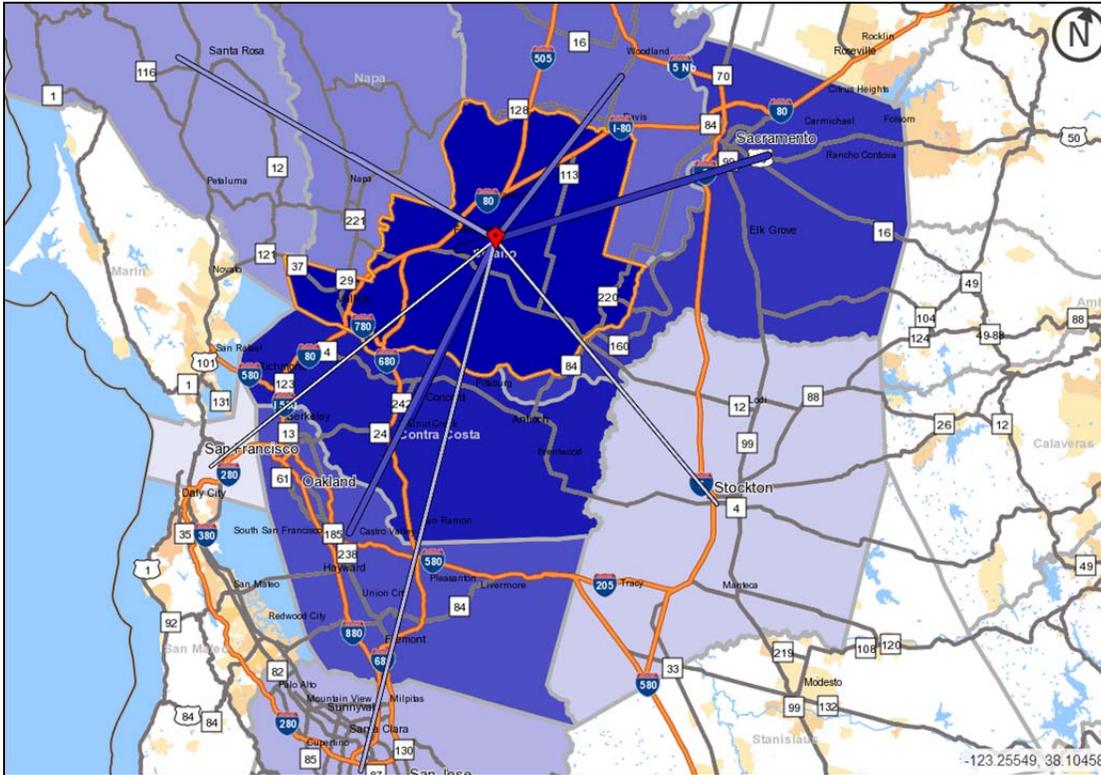
Note: Low Wage=\$1,250 per month or less; Moderate Wage=\$1,251 to \$3,333 per month; High Wage=more than \$3,333 per month



## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

The map in Figure 29 shows which Bay Area and Sacramento Region markets have major worker commute patterns into Solano County with most of these commuters coming from Sacramento, Napa, San Francisco, and San Jose, based on 2011 data.

FIGURE 29  
SOLANO COUNTY IN-COMMUTE PATTERNS MAP, 2011



Center for Strategic Economic Research, October 2013

Data Source: U.S. Census Bureau, American Community Survey, 2011 Local Employment Dynamics

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

The average 2007 through 2011 worker inflow-outflow ratio (replacement rate of in-commuters to out-commuters) of the Solano County communities ranged from around 24 percent to 92 percent. Between 91 and 92 percent of Benicia and Fairfield residents leaving those cities for work elsewhere were replaced by workers commuting into those cities. Suisun City and Vallejo had the lowest ratios among the Solano County communities (nearly 24 percent and 53 percent, respectively) demonstrating a rather large outflow of the resident workforce.

**FIGURE 30  
COMMUTE PATTERNS FOR SOLANO COUNTY COMMUNITIES**

<i>Factor</i>	<i>Benicia</i>	<i>Dixon</i>	<i>Fairfield</i>	<i>Rio Vista</i>	<i>Suisun City</i>	<i>Vacaville</i>	<i>Vallejo</i>
Worker Inflow -Outflow Ratio	91.9%	66.4%	90.7%	60.5%	23.5%	62.3%	52.8%
Top Out-Commute Counties*	Contra Costa, Alameda, San Francisco	Sacramento, Yolo, Contra Costa	Contra Costa, Alameda, Napa	Contra Costa, Sacramento, Alameda	Contra Costa, Alameda, Napa	Sacramento, Contra Costa, Alameda	Contra Costa, Alameda, San Francisco
Top Out-Commute Cities**	Vallejo, San Francisco, Fairfield	Sacramento, Vacaville, Davis	Vacaville, San Francisco, Vallejo	Fairfield, San Francisco, Sacramento	Fairfield, Vacaville, San Francisco	Fairfield, Sacramento, San Francisco	San Francisco, Oakland, Fairfield
Top In-Commute Counties*	Contra Costa, Alameda, Napa	Yolo, Sacramento, Contra Costa	Contra Costa, Sacramento, Napa	Sacramento, San Joaquin, Contra Costa	Contra Costa, Napa, Sacramento	Sacramento, Yolo, Contra Costa	Contra Costa, Napa, Alameda
Top In-Commute Cities**	Vallejo, Fairfield, Vacaville	Vacaville, Woodland, Davis	Vacaville, Suisun City, Vallejo	Lodi, Vacaville, Sacramento	Fairfield, Vacaville, Vallejo	Fairfield, Sacramento, Suisun City	Fairfield, Vacaville, Benicia

Center for Strategic Economic Research, October 2013

Data Sources: U.S. Census Bureau, American Community Survey, 2007-2011 American Community Survey 5-Year Estimates and 2007-2011 2011 Local Employment Dynamics

\*Solano ranked number one as commuter county for all areas, therefore it was not included.

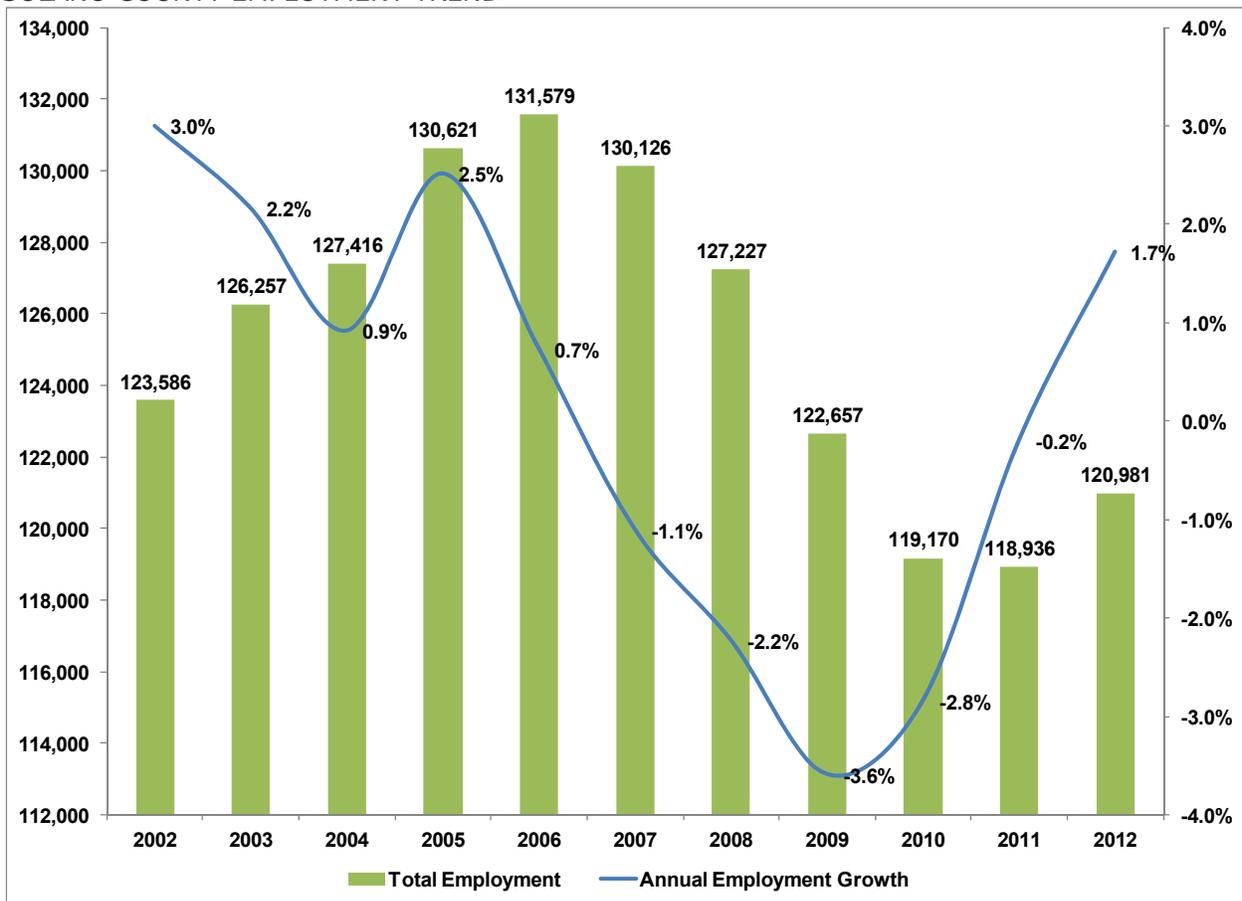
\*\*All cities ranked number one in its top commuter cities, therefore it was not included in this list. The exception is Suisun City which ranked fifth in its own top out-commute cities and second for in-commute cities.

**Economic Characteristics**

As presented in Figure 31, Solano County’s 2012 employment was just under 121,000, a few thousand jobs below the 2002 level. Over the 10-year time period, the county’s peak in employment occurred in 2006 with nearly 132,000 jobs, while its low point was in 2011 at just under 119,000 jobs. Annual average job growth greatly fluctuated between -3.6 percent and 3 percent, averaging 0.1 percent annual job growth in this period. From 2005 through 2009, annual average job growth declined significantly due to the recession, but rebounded into positive territory with the most recent year-over-year growth at just under 2 percent.

Fairfield, Vallejo, and Vacaville comprise the largest proportion of the county’s jobs, accounting for approximately 31 percent, 23 percent, and 22 percent of the county’s total employment (according to ESRI, Business Analyst Online data). With about 11 percent of total county jobs, Benicia also has a relatively large share. The communities of Rio Vista, Suisun City, and Dixon hold between around 1 and 3 percent each of total jobs.

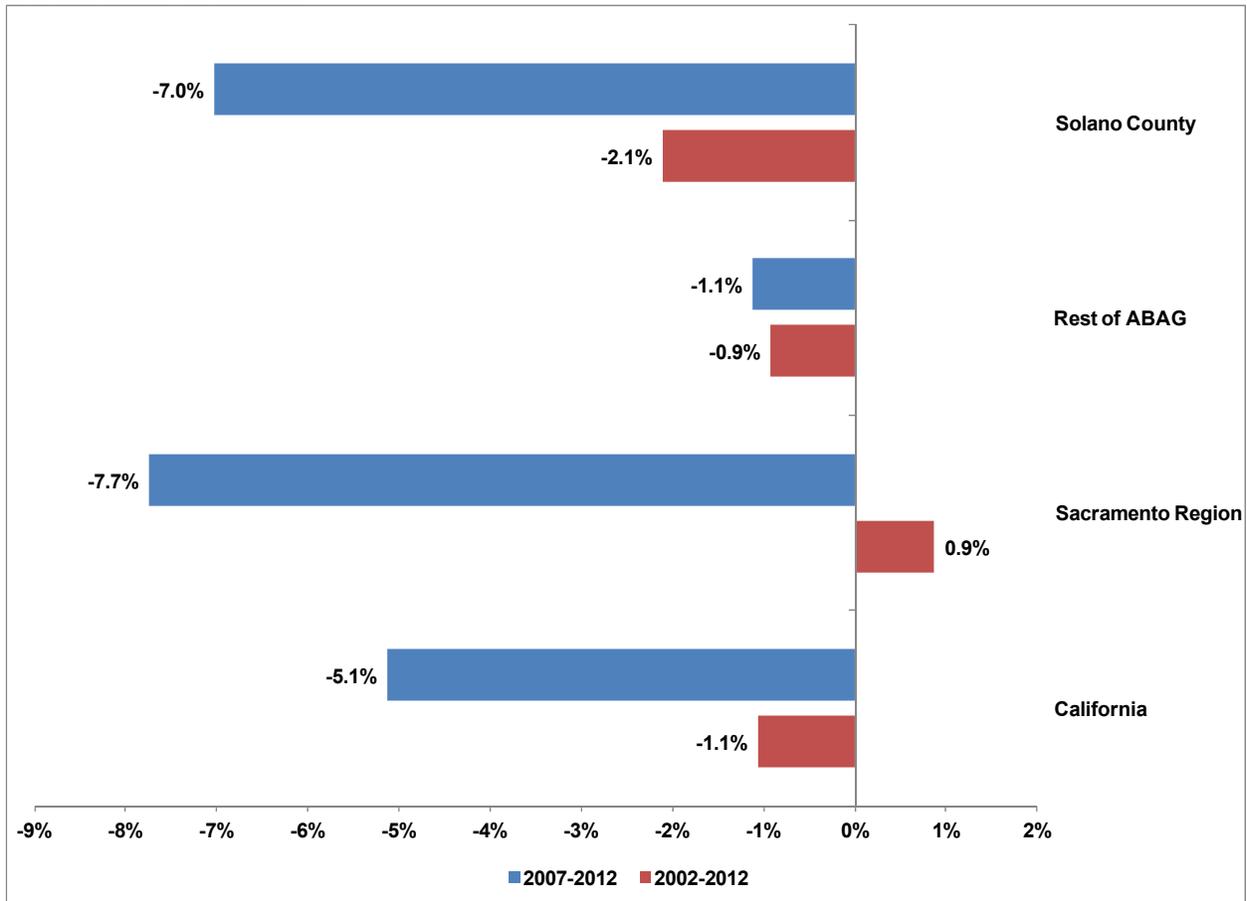
FIGURE 31  
SOLANO COUNTY EMPLOYMENT TREND



Center for Strategic Economic Research, October 2013  
 Data Source: Moody’s Analytics  
 Note: Does not include military employment.

All comparison areas lost jobs over both the five-year and 10-year time periods (with the exception of the Sacramento Region from 2002 to 2012), as shown in Figure 32. Solano County's 2007 to 2012 growth rate of -7 percent was far worse than the Rest of ABAG's rate of around -1 percent, but between the Sacramento Region's and California's rates of nearly -8 percent and around -5 percent, respectively. Solano County experienced the greatest rate of job losses from 2002 to 2012 relative to the other comparison areas which had growth rates between around -1 percent and 1 percent.

FIGURE 32  
EMPLOYMENT GROWTH



Center for Strategic Economic Research, October 2013

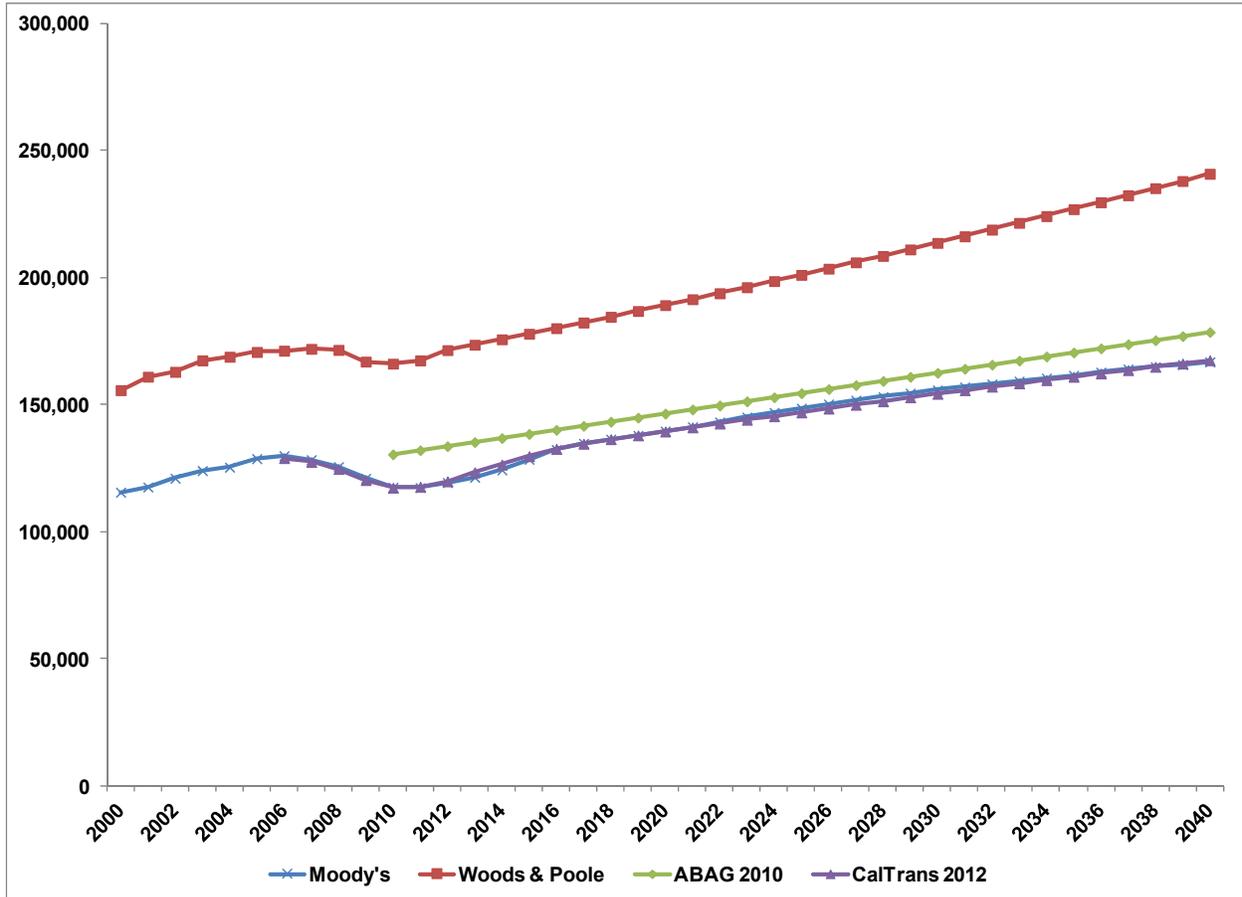
Data Source: Moody's Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Note: Does not include military employment.

## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

By 2040 and shown in Figure 33, Solano County could see total employment ranging between around 167,000 to 241,000 or about 34 percent to 41 percent growth (2013 to 2040) based on forecasts from four well-respected sources: Moody's Analytics, Woods & Poole Economics, Association of Bay Area Governments (ABAG), and California Department of Transportation (CalTrans).

**FIGURE 33**  
**SOLANO COUNTY EMPLOYMENT TRENDS AND PROJECTIONS**



Center for Strategic Economic Research, October 2013

Data Sources: Moody's Analytics, Woods & Poole Economics, California Department of Transportation; ABAG

Note: Only Woods & Poole Economics forecast includes military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

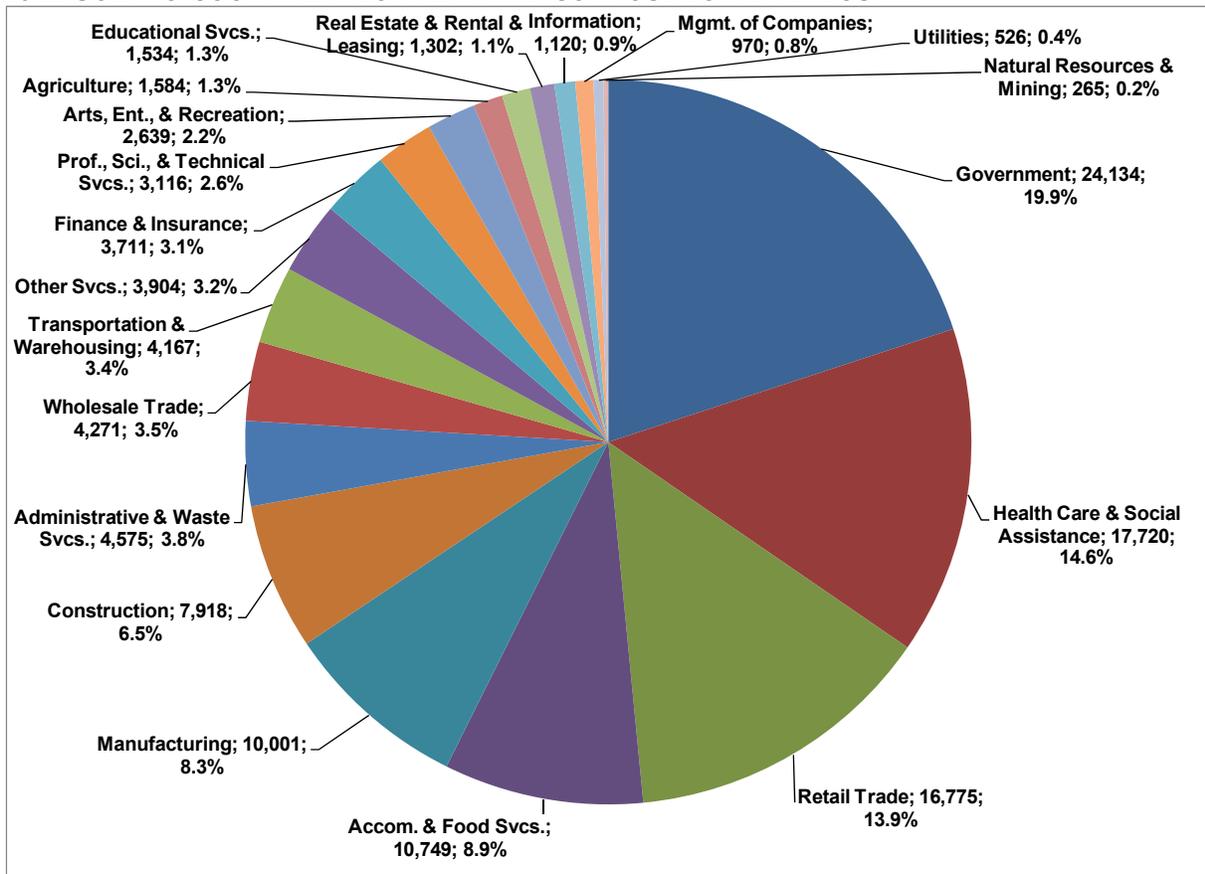
Solano County's economy is much less diversified than the Rest of ABAG and the state, but similar to the Sacramento Region, as measured through the Shannon-Weaver Diversity Index (Solano County and comparison area values are displayed in the figure to the right and on the following page for communities). A measure of 1.0 reflects a "perfectly diversified" economy. It is important to note that small differences are significant in terms of the level of diversification.

SHANNON-WEAVER DIVERSITY INDEX	
Area	Index
Solano County	0.87
Rest of ABAG	0.91
Sacramento Region	0.87
California	0.92

The county's 2012 industry structure based on employment is shown in Figure 34. Four major sectors make up the majority of the total employment in the county (approximately 65 percent), each with 10,000 or more employees: Government; Health Care & Social Assistance; Retail Trade; Accommodation & Food Services; and Manufacturing. Government contains the bulk of this employment, alone comprising around 20 percent of the total likely in large part due to civilian employment at Travis Air Force Base. In fact, according to Travis Air Force Base's 2012 Economic Impact Analysis, the base has a workforce totaling 13,409 people with over 10,000 of them classified as active duty military members or Air Force Reservists. The size of the remaining sectors range from 265 employees in Natural Resources & Mining to nearly 8,000 employees in Construction.

Data Source: IMPLAN, 2011 Coefficients  
 Note: A measure of 1.0 reflects a "perfectly diversified" economy.

FIGURE 34  
 2012 SOLANO COUNTY EMPLOYMENT AND COMPOSITION BY INDUSTRY



Center for Strategic Economic Research, October 2013  
 Data Source: Moody's Analytics  
 Note: Does not include military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

With Shannon-Weaver Diversity Index figures ranging from 0.80 to 0.86, Solano County communities are much less diversified than the state which measured at 0.92. Vallejo has the lowest score of 0.80 while Suisun City and Fairfield have the highest (0.86).

There is quite a variation among the communities' largest sector—Manufacturing accounts for the largest share of Benicia's total employment; Retail Trade for Dixon, Vacaville, and Vallejo; Government for Fairfield; Administrative & Waste Services for Suisun City; and Natural Resources & Mining for Rio Vista.

In terms of a communities' industry sector share of the same sector on a county basis, Benicia comprises the largest share of total jobs in the Management of Companies sector, Rio Vista houses the most countywide jobs in the Natural Resources & Mining sector, and Vallejo contains the most county jobs in the Finance & Insurance; Arts, Entertainment, & Recreation; and Other Services sectors (based on data from ESRI, Business Analyst Online). Vacaville has the largest share of county employment in five sectors, Agriculture; Utilities; Construction; Educational Services; and Accommodation & Food Services, while Fairfield houses the largest proportion of county jobs in the remaining 10 of the 20 major industry sectors.

SHANNON-WEAVER  
DIVERSITY INDEX

Area	Index
Benicia	0.84
Vallejo	0.80
Suisun City	0.86
Dixon	0.82
Vacaville	0.83
Rio Vista	0.84
Fairfield	0.86

Data Source: IMPLAN, 2011 Coefficients  
Note: A measure of 1.0 reflects a "perfectly diversified" economy.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Industry composition by employment for Solano County, the Rest of ABAG, the Sacramento Region, and California is shown in Figure 35. All comparison areas have the largest proportion of jobs in 2012 within their Government sector; the second-largest sector is Professional, Scientific, & Technical Services in the Rest of ABAG and Retail Trade in the Sacramento Region and California.

**FIGURE 35  
EMPLOYMENT COMPOSITION BY INDUSTRY  
(SORTED BY 2012 SOLANO COUNTY COMPOSITION)**

Sector	2002				2007				2012			
	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California
Government	21.4%	13.3%	25.0%	16.6%	20.5%	13.2%	23.9%	16.2%	19.9%	12.6%	24.4%	16.2%
Health Care & Social Assistance	11.0%	8.5%	8.4%	8.5%	11.9%	8.8%	9.4%	9.0%	14.6%	9.9%	11.1%	10.6%
Retail Trade	14.3%	10.1%	11.3%	10.7%	14.1%	10.1%	11.2%	11.0%	13.9%	9.6%	11.1%	10.7%
Accom. & Food Svcs.	8.2%	7.6%	7.6%	7.8%	8.4%	8.4%	8.1%	8.5%	8.9%	9.1%	8.3%	9.2%
Manufacturing	8.1%	12.3%	6.0%	11.1%	8.1%	10.5%	4.5%	9.5%	8.3%	9.5%	4.1%	8.6%
Construction	8.8%	5.4%	7.3%	5.2%	8.2%	5.7%	7.3%	5.8%	6.5%	4.2%	4.5%	4.0%
Administrative & Waste Svcs.	5.2%	5.5%	5.2%	6.4%	5.4%	5.8%	5.3%	6.5%	3.8%	5.7%	5.8%	6.4%
Wholesale Trade	3.3%	3.9%	2.6%	4.4%	3.2%	3.5%	2.5%	4.6%	3.5%	3.6%	2.5%	4.6%
Transportation & Warehousing	2.1%	1.7%	2.4%	3.0%	3.4%	1.4%	2.4%	2.9%	3.4%	2.1%	2.2%	2.9%
Other Svcs.	3.0%	4.1%	3.9%	3.4%	3.1%	4.4%	4.4%	3.3%	3.2%	5.3%	5.2%	3.5%
Finance & Insurance	2.3%	4.6%	4.8%	3.9%	2.7%	4.5%	5.0%	4.0%	3.1%	3.7%	4.2%	3.6%
Prof., Sci., & Technical Svcs.	2.3%	9.2%	4.8%	6.2%	2.6%	10.2%	5.9%	6.9%	2.6%	11.4%	6.1%	7.6%
Arts, Ent., & Recreation	1.7%	1.5%	1.4%	1.6%	1.8%	1.5%	1.4%	1.6%	2.2%	1.7%	1.7%	1.8%
Agriculture	2.1%	0.5%	1.5%	2.2%	1.4%	0.6%	1.4%	1.5%	1.3%	0.6%	1.5%	1.5%
Educational Svcs.	0.7%	1.9%	1.1%	1.7%	1.2%	2.2%	1.3%	1.9%	1.3%	2.7%	1.6%	2.3%
Real Estate & Rental & Leasing	1.5%	1.9%	1.7%	1.8%	1.6%	1.8%	1.7%	1.8%	1.1%	1.7%	1.5%	1.7%
Information	1.5%	3.8%	2.6%	3.4%	1.2%	3.5%	2.2%	3.1%	0.9%	3.8%	1.7%	2.9%
Mgmt. of Companies	2.0%	2.2%	1.4%	1.8%	0.8%	1.8%	0.9%	1.3%	0.8%	2.0%	1.2%	1.4%
Utilities	0.4%	0.2%	0.2%	0.4%	0.3%	0.1%	0.2%	0.4%	0.4%	0.2%	0.2%	0.4%
Natural Resources & Mining	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.2%
Unclassified	0.0%	1.8%	0.6%	0.0%	0.0%	1.9%	0.7%	0.0%	0.0%	0.6%	0.9%	0.0%

Center for Strategic Economic Research, October 2013

Data Source: Moody's Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Notes: Solano County 2002 establishment data not disclosed for Transportation & Warehousing and Utilities. Does not include military employment.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 36 shows that, from 2002 to 2012, 11 of the 20 sectors in Solano County had positive employment growth while the remaining 9 saw job losses. The highest growth rates were seen in the Educational Services; Transportation & Warehousing; and Natural Resources & Mining sectors which posted growth rates between around 37 and 67 percent. Rates of growth for these sectors varied greatly among the comparison areas, ranging from around -7 percent to 37 percent in the Rest of ABAG, -30 percent to 42 percent in the Sacramento Region, and -2 percent to 39 percent in California. Solano County's largest sector, Government, lost jobs at a rate of nearly 9 percent while its second-largest sector and one of the major sectors associated with the county's Life Sciences cluster, Health Care & Social Assistance, grew 30 percent. The most significant rates of loss were seen in the county's Management of Companies sector (a nearly 60 percent decline) and Agriculture and Information sectors, each with nearly -38 percent growth. Construction, another relatively large sector in the county, suffered significant losses at a rate of nearly 28 percent over this ten-year period as a result of the housing market and economic downturn. Educational Services also experienced the strongest growth in the Rest of ABAG and the Sacramento Region while Administrative & Waste Services had the weakest performance in those areas. California's highest growth rate was seen in Natural Resources & Mining sector (almost 39 percent) while Agriculture suffered the most pronounced losses at a rate of nearly 31 percent.

**FIGURE 36  
EMPLOYMENT GROWTH BY INDUSTRY  
(SORTED BY SOLANO COUNTY 2002-2012 GROWTH)**

Sector	2007-2012				2002-2012			
	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California
Educational Svcs.	0.5%	18.4%	10.7%	16.2%	66.7%	36.8%	42.4%	37.0%
Transportation & Warehousing	-6.3%	50.5%	-15.7%	-5.1%	61.4%	21.7%	-7.5%	-2.1%
Natural Resources & Mining	-10.5%	-8.4%	-38.3%	16.3%	36.6%	-7.2%	-29.9%	38.8%
Finance & Insurance	4.8%	-17.9%	-23.4%	-14.6%	31.6%	-19.0%	-13.3%	-9.5%
Health Care & Social Assistance	14.8%	11.5%	8.4%	11.2%	30.0%	15.6%	33.8%	22.5%
Arts, Ent., & Recreation	10.4%	6.3%	11.4%	2.9%	24.3%	9.8%	20.9%	12.8%
Utilities	17.9%	116.2%	-21.6%	2.4%	18.5%	36.1%	-15.1%	8.2%
Prof., Sci., & Technical Svcs.	-8.6%	9.8%	-5.0%	4.3%	8.6%	23.2%	26.7%	20.9%
Wholesale Trade	3.7%	-0.2%	-7.2%	-5.4%	5.9%	-10.1%	-1.8%	4.1%
Accom. & Food Svcs.	-1.2%	6.9%	-4.6%	2.4%	5.8%	19.0%	10.5%	16.2%
Other Svcs.	-2.0%	19.5%	9.1%	-1.2%	5.2%	29.2%	32.9%	0.1%
Manufacturing	-5.7%	-10.0%	-15.2%	-14.4%	-0.1%	-23.3%	-30.3%	-23.3%
Retail Trade	-8.2%	-5.5%	-8.7%	-7.4%	-5.4%	-5.7%	-0.8%	-1.1%
Government	-9.3%	-5.5%	-5.8%	-4.9%	-8.6%	-6.3%	-1.3%	-3.1%
Construction	-25.9%	-27.1%	-42.8%	-34.1%	-27.5%	-22.8%	-37.5%	-24.0%
Administrative & Waste Svcs.	-35.3%	-3.0%	0.7%	-6.8%	-28.5%	2.7%	13.2%	-1.0%
Real Estate & Rental & Leasing	-37.3%	-8.2%	-22.0%	-11.4%	-30.2%	-11.7%	-11.1%	-6.3%
Agriculture	-10.1%	-6.2%	4.1%	-6.6%	-37.6%	2.6%	3.4%	-30.5%
Information	-27.9%	8.4%	-28.3%	-8.6%	-37.8%	-1.2%	-34.9%	-13.5%
Mgmt. of Companies	-3.2%	8.8%	18.8%	-2.5%	-59.9%	-11.6%	-10.0%	-24.3%
Unclassified	-	-67.1%	23.3%	-	-	-64.2%	45.5%	-
Total All Industries	-7.0%	-1.1%	-7.7%	-5.1%	-2.1%	-0.9%	0.9%	-1.1%

Center for Strategic Economic Research, October 2013

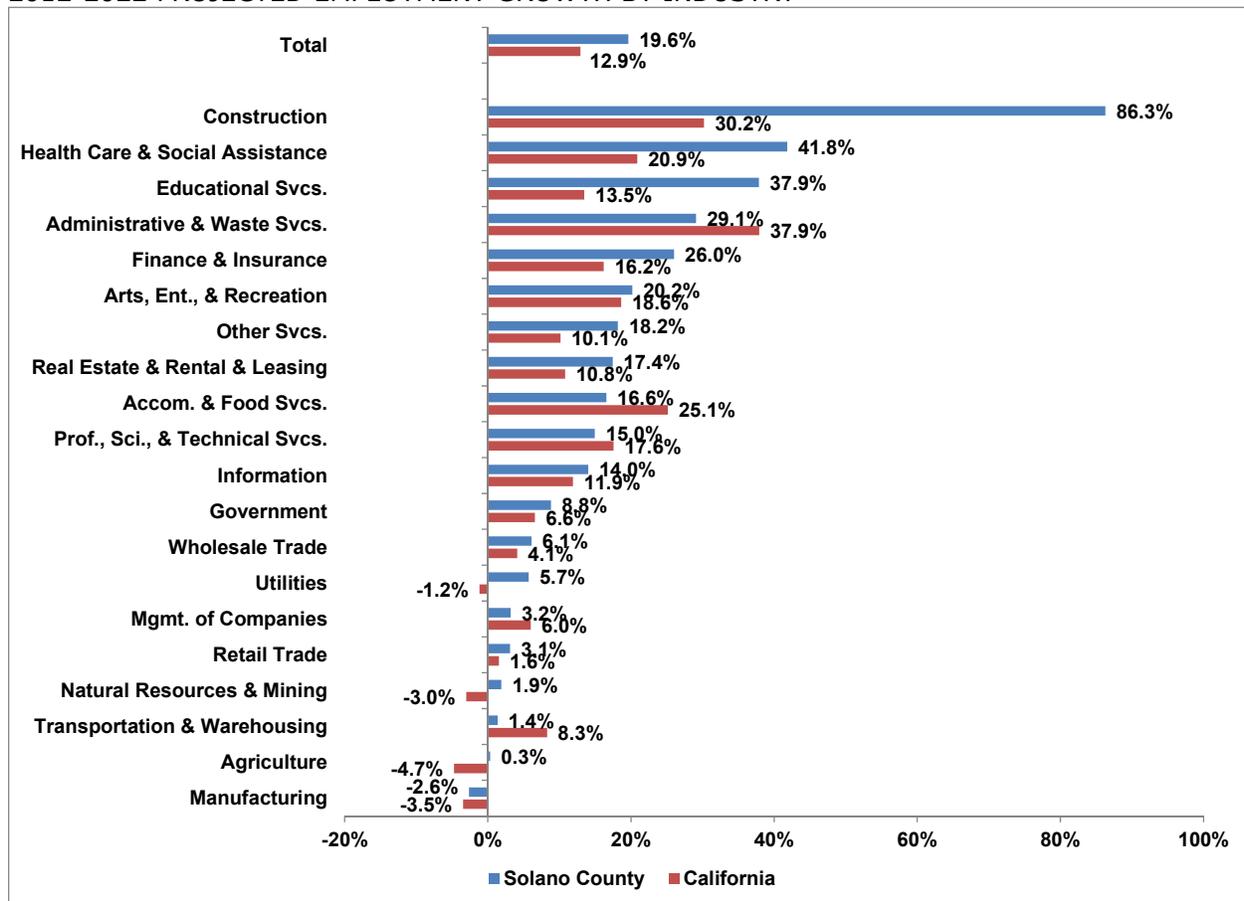
Data Source: Moody's Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Note: Does not include military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Solano County’s total employment is forecast to increase nearly 20 percent by 2022 in comparison to California’s projected 13 percent growth, as displayed in Figure 37. The county’s Construction; Health Care & Social Assistance; and Educational Services sectors are forecast to experience the greatest levels of growth, around 86 percent, 42 percent, and 38 percent, respectively. Construction, in particular, is forecasted to experience very high levels of growth because of its recovery from extreme losses the sector witnessed with the recent economic downturn (the Great Recession) and real estate bubble. Growth within these sectors is expected to far exceed growth at the statewide level. California’s Administrative & Waste Services; Construction; and Accommodation & Food Services sectors are forecast to experience the strongest growth in the next 10 years. Solano County’s Manufacturing sector is forecasted to experience a nearly 3 percent decline in jobs; however, this is the only sector expected to see negative growth in the county relative to four sectors statewide (Manufacturing; Agriculture; Natural Resources & Mining; and Utilities).

FIGURE 37  
2012-2022 PROJECTED EMPLOYMENT GROWTH BY INDUSTRY



Center for Strategic Economic Research, October 2013

Data Source: Moody’s Analytics

Note: Does not include military employment.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 38 shows 2012 and projected 2022 industry sector composition and composition shift for Solano County and California. The county and the state share the same top sectors in terms of composition: Government; Health Care & Social Assistance; and Retail Trade; however, as the state is more diversified, the county's proportions in these sectors exceed those of the state. Through 2022, it is forecast that the county's Government and Retail Trade sectors are expected to lose nearly 2 percentage points each in their level of composition, which will be absorbed in the Construction sector in its nearly 4 percentage point increase in composition over this time period. Health Care & Social Assistance is also forecast to see a strong shift in composition, nearly 3 percentage points which bodes well for further expansion of the county's Life Sciences cluster. The state is forecast to see smaller shifts in composition among its sectors with Manufacturing forecast to see the greatest negative shift (around -1 percentage point) and Administrative & Waste Services the largest positive shift (over 1 percentage point).

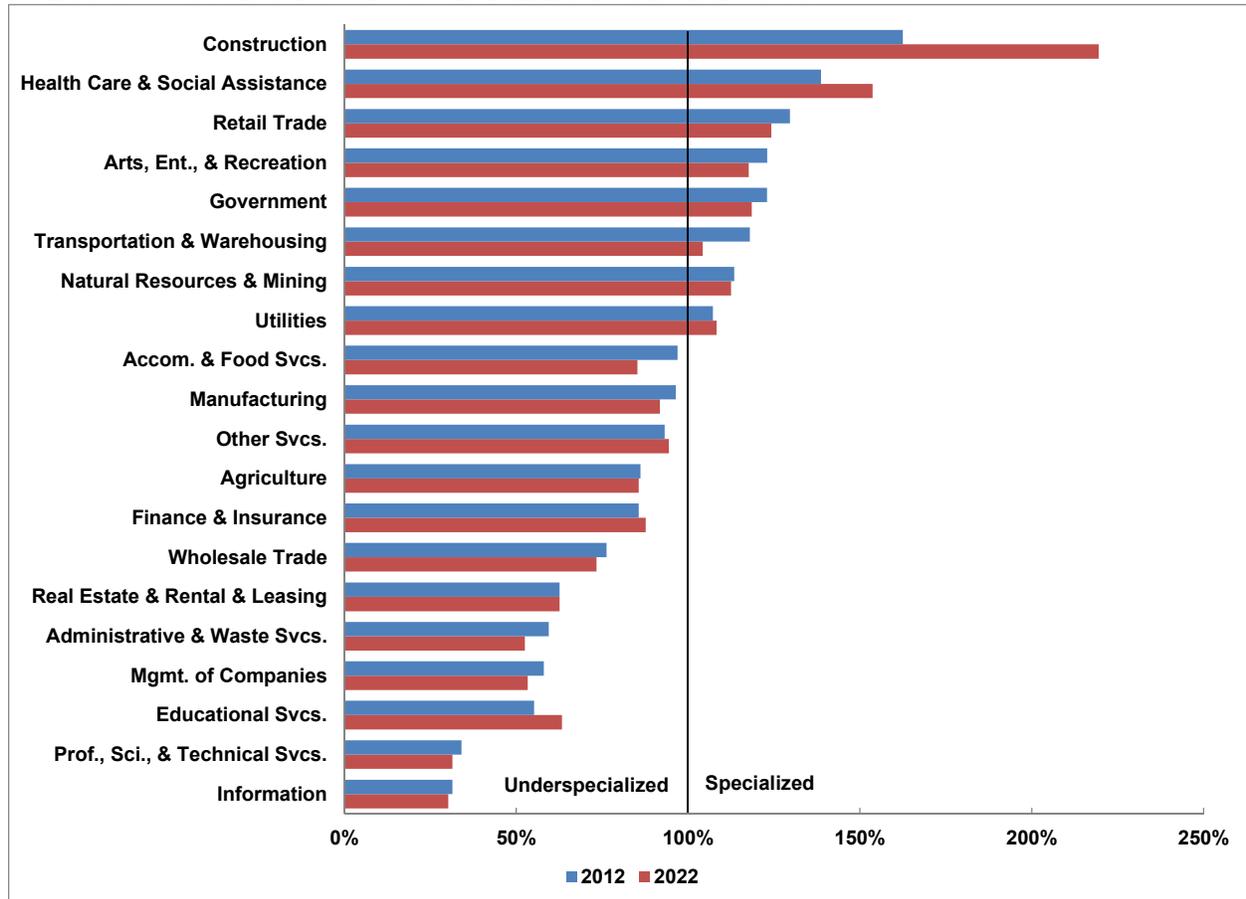
**FIGURE 38  
EMPLOYMENT COMPOSITION AND COMPOSITION SHIFT BY INDUSTRY  
(SORTED BY SOLANO COUNTY 2012 COMPOSITION)**

Sector	2012-2022					
	2012 Composition		2022 Composition		Composition Shift	
	Solano County	California	Solano County	California	Solano County	California
Government	19.9%	16.2%	18.1%	15.3%	-1.8%	-0.9%
Health Care & Social Assistance	14.6%	10.6%	17.4%	11.3%	2.7%	0.7%
Retail Trade	13.9%	10.7%	11.9%	9.6%	-1.9%	-1.1%
Accom. & Food Svcs.	8.9%	9.2%	8.7%	10.2%	-0.2%	1.0%
Manufacturing	8.3%	8.6%	6.7%	7.3%	-1.5%	-1.2%
Construction	6.5%	4.0%	10.2%	4.6%	3.6%	0.6%
Administrative & Waste Svcs.	3.8%	6.4%	4.1%	7.8%	0.3%	1.4%
Wholesale Trade	3.5%	4.6%	3.1%	4.3%	-0.4%	-0.4%
Transportation & Warehousing	3.4%	2.9%	2.9%	2.8%	-0.5%	-0.1%
Other Svcs.	3.2%	3.5%	3.2%	3.4%	0.0%	-0.1%
Finance & Insurance	3.1%	3.6%	3.2%	3.7%	0.2%	0.1%
Prof., Sci., & Technical Svcs.	2.6%	7.6%	2.5%	7.9%	-0.1%	0.3%
Arts, Ent., & Recreation	2.2%	1.8%	2.2%	1.9%	0.0%	0.1%
Agriculture	1.3%	1.5%	1.1%	1.3%	-0.2%	-0.2%
Educational Svcs.	1.3%	2.3%	1.5%	2.3%	0.2%	0.0%
Real Estate & Rental & Leasing	1.1%	1.7%	1.1%	1.7%	0.0%	0.0%
Information	0.9%	2.9%	0.9%	2.9%	0.0%	0.0%
Mgmt. of Companies	0.8%	1.4%	0.7%	1.3%	-0.1%	-0.1%
Utilities	0.4%	0.4%	0.4%	0.4%	-0.1%	-0.1%
Natural Resources & Mining	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%

Center for Strategic Economic Research, October 2013  
 Data Source: Moody's Analytics  
 Note: Does not include military employment.

Specialization measures an industry’s share of total employment in one economy relative to its share in the larger regional, statewide, or national economy. Specialized sectors typically indicate current or historical locational advantages or unique operating conditions in a particular area or activities within that sector that are geared toward export. Figure 39 shows the level of specialization of major sectors within Solano County compared to California. In both 2012 and 2022, the county shows a high level of specialization in eight sectors relative to the state: Construction; Health Care & Social Assistance; Retail Trade; Arts, Entertainment, & Recreation; Government; Transportation & Warehousing; Natural Resources & Mining; and Utilities, many of which are consumer-driven sectors. The latter two sectors are part of the county’s Energy cluster and maintaining and nurturing their level of specialization will benefit this focus area. Twelve sectors are underspecialized and those that show the lowest level of specialization in the county are Educational Services; Professional, Scientific, & Technical Services; and Information.

FIGURE 39  
SOLANO COUNTY EMPLOYMENT SPECIALIZATION BY INDUSTRY



Center for Strategic Economic Research, October 2013

Data Source: Moody’s Analytics

Notes: A measure of 100 percent means that Solano County has the same share of total employment in the industry as California.

Does not include military employment.

Industry sectors' specific components are generally placed in one of two roles:

- **Base Activities:** Base activities cause changes in the local economic structure and drive development. Typical characteristics of base activities include the following: they face few geographical constraints, allowing them to operate anywhere deemed attractive; they produce a significant amount of goods and services for domestic and international export; and they bring net new wealth into an economy.
- **Local-serving Activities:** Local-serving activities are the consequences of local development. Local-serving components are located to serve a local market's residents or base sectors and produce goods and services for local consumption, which generally moves wealth around a local area.

Therefore, base activities are active drivers of economic development and local-serving components are passive participants that respond to economic and demographic growth trends. Nine of the twenty major sectors in Solano County support a mix of base and local-serving components, five sectors are comprised entirely of base activities, and six sectors solely include local-serving components.<sup>2</sup>

Employment dynamics of the county's economic base industries and details on the mix of its base and local-serving activities are provided in Figures 40 and 41 on the next two pages. Around 30 percent of Solano County employment is supported by base activities (Sacramento Region, by comparison, has an approximate 34 percent share of base employment). Total base employment has remained at the same level since 2002, while total local-serving sector employment decreased 3 percent over the past 10 years. Over the shorter-term period of five years, both total base and local-serving sector employment lost jobs, around -2 percent and -9 percent, respectively.

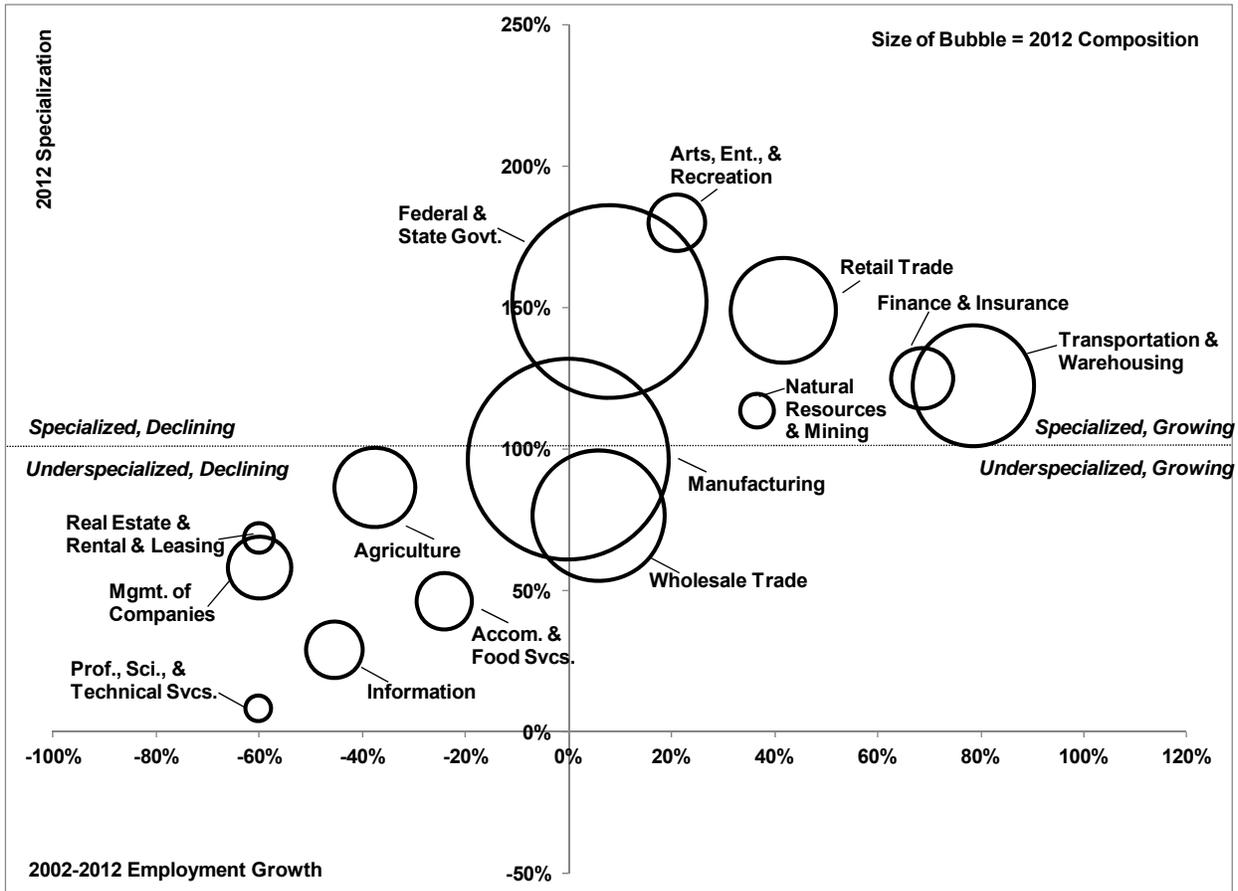
The base component employment of the Manufacturing and Government sectors accounts for nearly 53 percent of total 2012 base employment in the county. The base employment of Government is specialized relative to the state and has gained jobs over the past 10 years, while Manufacturing is slightly underspecialized and experienced a very slight decline (-0.1 percent) in jobs since 2002. Manufacturing is the largest base sector and is expected to see negative employment growth in the next ten years, highlighting the need to maintain and grow this sector particularly as it is an important component of the county's focus clusters.

From 2002 to 2012, seven sectors in each of the base and local-serving components have lost jobs. All of the base sectors that have lost jobs are also underspecialized and could benefit from retention efforts that can help address business needs and nurture their growth. Some of these base sectors include Manufacturing and Professional, Scientific, & Technical Services, which are in all focus clusters of the county, and Agriculture and Accommodation & Food Services, which are in the Food Chain cluster. Other sectors, which are specialized and have seen job growth (e.g. Transportation & Warehousing; Finance & Insurance; Retail Trade; and Arts, Entertainment, & Recreation), also are candidates for business retention efforts.

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<sup>2</sup> To split base and local-serving activities, Solano County sectors which had more than 10 percent of their production exported were identified. The identified sectors were ultimately matched to NAICS employment data for Solano County to reflect the split between base and local-serving employment for major sectors in the county.

FIGURE 40  
2012 SOLANO COUNTY BASE INDUSTRIES EMPLOYMENT DYNAMICS



Center for Strategic Economic Research, October 2013

Data Sources: CSER estimates based on Moody's Economy.com and IMPLAN, 2011 Coefficients

Note: Does not include military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

FIGURE 41  
2012 SOLANO COUNTY BASE AND LOCAL SECTORS EMPLOYMENT  
DYNAMICS

Sector	2012 Employment		2002-2012 % Growth		2007-2012 % Growth	
	Base	Local	Base	Local	Base	Local
Agriculture	1,584	-	-37.6%	-	-10.1%	-
Natural Resources & Mining	265	-	36.6%	-	-10.5%	-
Utilities	-	526	-	18.5%	-	17.9%
Construction	-	7,918	-	-27.5%	-	-25.9%
Manufacturing	10,001	-	-0.1%	-	-5.7%	-
Wholesale Trade	4,271	-	5.9%	-	3.7%	-
Retail Trade	2,703	14,072	41.7%	-11.1%	-1.4%	-9.5%
Transportation & Warehousing	3,606	561	78.6%	-0.4%	0.4%	-34.7%
Information	802	318	-45.4%	-4.5%	-29.5%	-23.7%
Finance & Insurance	926	2,785	68.7%	22.7%	-11.5%	11.7%
Real Estate & Rental & Leasing	217	1,085	-60.1%	-17.8%	-47.2%	-34.8%
Prof., Sci., & Technical Svcs.	157	2,959	-60.3%	19.7%	-19.9%	-8.0%
Mgmt. of Companies	970	-	-59.9%	-	-3.2%	-
Administrative & Waste Svcs.	-	4,575	-	-28.5%	-	-35.3%
Educational Svcs.	-	1,534	-	66.7%	-	0.5%
Health Care & Social Assistance	-	17,720	-	30.0%	-	14.8%
Arts, Ent., & Recreation	806	1,833	21.0%	25.8%	9.7%	10.8%
Accom. & Food Svcs.	766	9,983	-24.1%	9.1%	8.8%	-1.9%
Other Svcs.	-	3,904	-	5.2%	-	-2.0%
Government	9,203	14,931	7.9%	-16.5%	5.8%	-16.6%
Total	36,277	84,704	0.0%	-3.0%	-2.1%	-9.0%
Percent Total	30.0%	70.0%				

Center for Strategic Economic Research, October 2013

Data Sources: CSER estimates based on Moody's Economy.com and IMPLAN, 2011 Coefficients

Note: Does not include military employment.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 42 shows industry employment by occupational category for Solano County, the Rest of ABAG, the Sacramento Region, and California. The top occupations within the county industry establishments are in the Office and Administrative Support; Sales & Related; Food Preparation & Serving-Related; and Healthcare Practitioners & Technical categories which comprise around 46 percent of total industry employment (55,000 jobs) and require a low training level, except for Healthcare Practitioners & Technical which has a high training level. The same occupational categories account for the largest proportions of employment in the Rest of ABAG, the Sacramento Region, and California. About 28 percent of industry employment is within occupations that require a high training level and 12 percent are medium-skilled; however, the largest proportion (60 percent of total employment) is within low-skilled occupational categories.

**FIGURE 42  
INDUSTRY EMPLOYMENT AND COMPOSITION BY OCCUPATION  
(SORTED BY SOLANO COUNTY EMPLOYMENT)**

<i>Major Occupational Category</i>	<i>Solano County</i>		<i>Rest of ABAG*</i>	<i>Sacramento Region</i>	<i>California</i>	<i>Training Level</i>
	<i>Total Employment</i>	<i>Composition</i>				
Office & Administrative Support	21,070	17.4%	15.2%	18.6%	16.8%	Low
Sales & Related	13,990	11.6%	10.0%	10.1%	10.3%	Low
Food Preparation & Serving-Related	11,690	9.7%	8.8%	8.9%	9.1%	Low
Healthcare Practitioners & Technical	8,250	6.8%	4.8%	5.4%	5.0%	High
Transportation & Material Moving	7,600	6.3%	5.0%	5.3%	6.3%	Low
Education, Training, & Library	7,390	6.1%	5.7%	6.7%	6.3%	High
Construction & Extraction	6,420	5.3%	3.2%	3.6%	3.2%	Medium
Production	6,350	5.3%	4.5%	3.1%	5.5%	Low
Management	5,620	4.7%	7.1%	5.3%	5.7%	High
Installation, Maintenance, & Repair	4,840	4.0%	2.9%	3.4%	3.3%	Medium
Business & Financial Operations	4,450	3.7%	6.9%	7.2%	5.5%	High
Personal Care & Service	4,130	3.4%	2.5%	2.6%	2.5%	Low
Healthcare Support	4,040	3.3%	2.2%	2.5%	2.5%	Low
Protective Service	3,360	2.8%	2.0%	2.3%	2.4%	Medium
Building & Grounds Cleaning & Maintenance	3,210	2.7%	3.2%	3.1%	3.2%	Low
Community & Social Services	1,820	1.5%	1.5%	1.7%	1.5%	High
Computer & Mathematical	1,520	1.3%	6.5%	3.7%	3.3%	High
Life, Physical, & Social Science	1,510	1.3%	1.6%	1.6%	1.2%	High
Architecture & Engineering	1,280	1.1%	3.3%	2.2%	2.2%	High
Arts, Design, Entertainment, Sports, & Media	1,050	0.9%	1.8%	1.1%	2.0%	High
Legal	640	0.5%	1.0%	0.9%	0.8%	High
Farming, Fishing, & Forestry	570	0.5%	0.3%	0.6%	1.4%	Low

Center for Strategic Economic Research, October 2013

Data Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics, May 2012 Occupational Employment and Wage Estimates

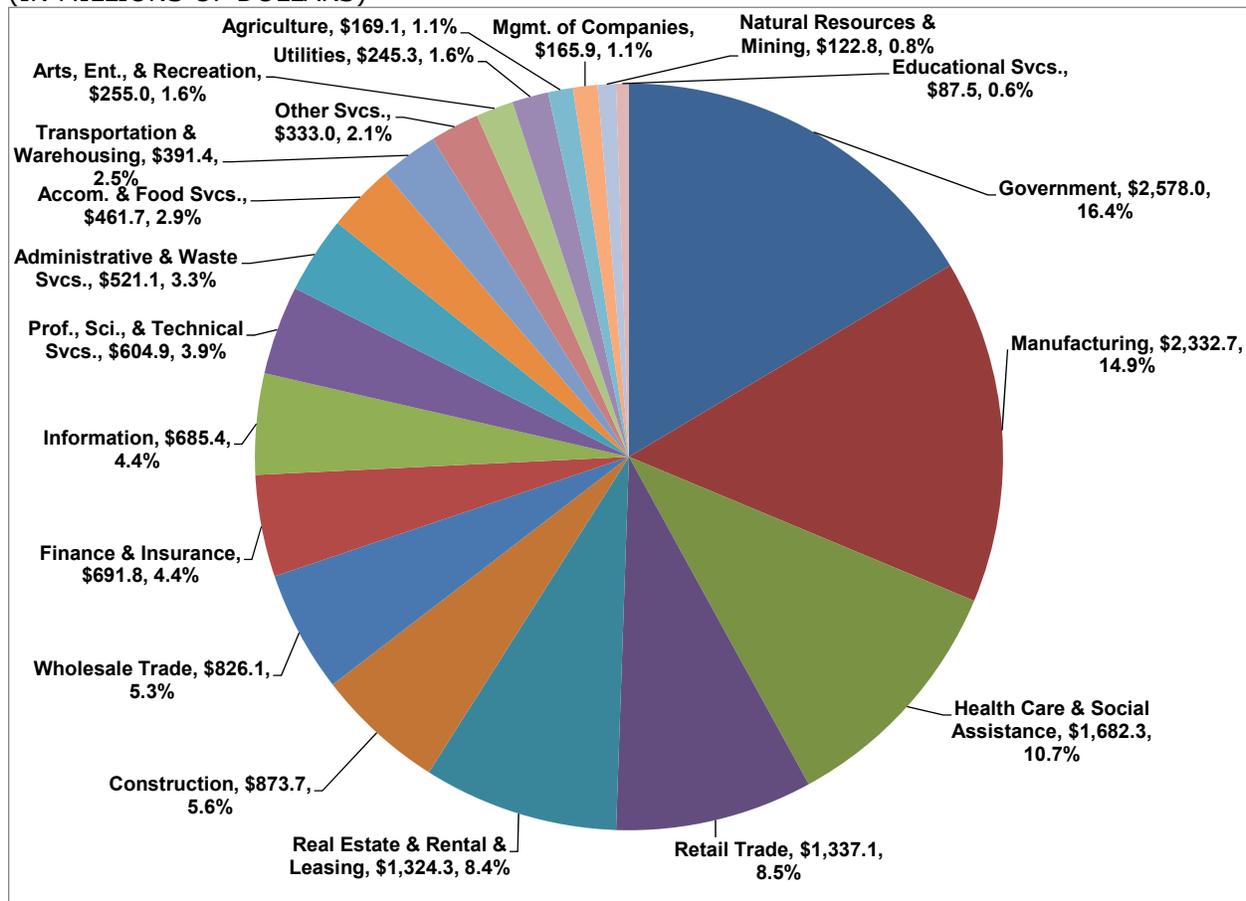
Note: High training level = four-year degree or above plus work experience; medium = considerable on-the-job training, vocational education, or a two-year degree; low = some on-the-job training and high school-level education. Based on "O\*Net" job zones.

\*Includes San Benito County as it is part of the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area.

Output refers to the market value of goods produced or services provided and is frequently reflected as the total revenue or sales in businesses. About half of the county’s 2012 output (which totaled around \$15.7 billion) shown in Figure 43, falls within the Government; Manufacturing; Health Care & Social Assistance; and Retail Trade industry sectors. Government generated the most output, nearly \$2.6 billion in 2012. Solano County’s structure varies somewhat from California in that Manufacturing and Government are among the state’s largest sectors in terms of output—Real Estate & Rental & Leasing and Professional, Scientific, & Technical Services make up the other top two.

Benicia, Fairfield, and Vacaville generate the largest proportions in output among all communities, ranging between 22 and 29 percent of the county’s total output, based on IMPLAN 2011 coefficients.

FIGURE 43  
2012 SOLANO COUNTY OUTPUT AND COMPOSITION BY INDUSTRY  
(IN MILLIONS OF DOLLARS)



Center for Strategic Economic Research, October 2013  
Data Source: Moody’s Analytics

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Solano County’s total output grew about 50 percent from 2002 to 2012, just above California’s rate of approximately 48 percent (shown in Figure 44). The county’s Arts, Entertainment, & Recreation; Manufacturing; and Educational Services sectors experienced the highest growth rates in this time period while Natural Resources & Mining; Educational Services; and Manufacturing saw the strongest growth in California. Only Management of Companies experienced losses in output within the county since 2002. As the economy recovers and expands, stronger total output growth is forecast from 2012 to 2022—around 56 percent for the county and nearly 59 percent for California. Construction is forecast to see the highest level of growth in the county (almost 109 percent) while Information is anticipated to have the highest growth rates in California (close to 91 percent).

FIGURE 44  
OUTPUT GROWTH BY INDUSTRY

Sector	2002-2012		2012-2022	
	Solano County	California	Solano County	California
Arts, Ent., & Recreation	140.1%	57.8%	61.3%	78.9%
Manufacturing	136.3%	72.8%	50.2%	59.7%
Educational Svcs.	110.4%	95.9%	64.9%	44.9%
Natural Resources & Mining	110.3%	294.5%	32.8%	54.9%
Health Care & Social Assistance	101.9%	80.4%	61.1%	41.6%
Transportation & Warehousing	86.4%	32.9%	64.6%	88.2%
Information	82.4%	63.7%	84.0%	90.5%
Utilities	62.8%	44.7%	67.1%	64.4%
Prof., Sci., & Technical Svcs.	60.8%	70.6%	53.2%	64.1%
Wholesale Trade	59.0%	45.7%	67.6%	77.5%
Administrative & Waste Svcs.	54.9%	43.0%	48.9%	59.5%
Finance & Insurance	49.9%	23.2%	58.2%	53.0%
Government	40.7%	46.7%	28.3%	31.0%
Accom. & Food Svcs.	36.4%	46.0%	54.0%	70.9%
Other Svcs.	33.0%	22.9%	28.1%	23.5%
Agriculture	30.2%	78.2%	11.5%	17.4%
Retail Trade	18.3%	25.8%	60.7%	62.9%
Real Estate & Rental & Leasing	8.6%	38.0%	70.2%	64.6%
Construction	0.7%	3.1%	108.7%	52.0%
Mgmt. of Companies	-27.3%	15.9%	44.1%	54.3%
Total All Industries	50.1%	48.2%	56.4%	58.7%

Center for Strategic Economic Research, October 2013  
Data Source: Moody’s Analytics

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 39 shows the composition and shift of industries based on output. In 2012, Government; Manufacturing; and Health Care & Social Assistance comprised the largest shares of total output in the county. Health Care & Social Assistance is an important component of the county’s Life Sciences cluster, while Manufacturing is within all of the focus clusters. Government and Manufacturing also account for the top shares statewide, but Real Estate & Rental & Leasing tops the list with almost 15 percent of total output. Solano County is anticipated to maintain these sectors in its top three; however, Government’s share is expected to decline nearly 3 percentage points placing it below manufacturing which is forecast to generate the highest economic output of any industry in the county by 2022 as a result of it sustaining or increasing its efficiencies. The Government sector’s composition is forecast to shift -2 percentage points placing it as the state’s fourth-largest sector in terms of output in 2022, displaced by Professional, Scientific, & Technical Services. Construction’s share of the county’s total output is anticipated to see largest positive composition shift, nearly 2 percentage points, while Information is forecast to have the largest composition shift statewide—just over 1 percentage point.

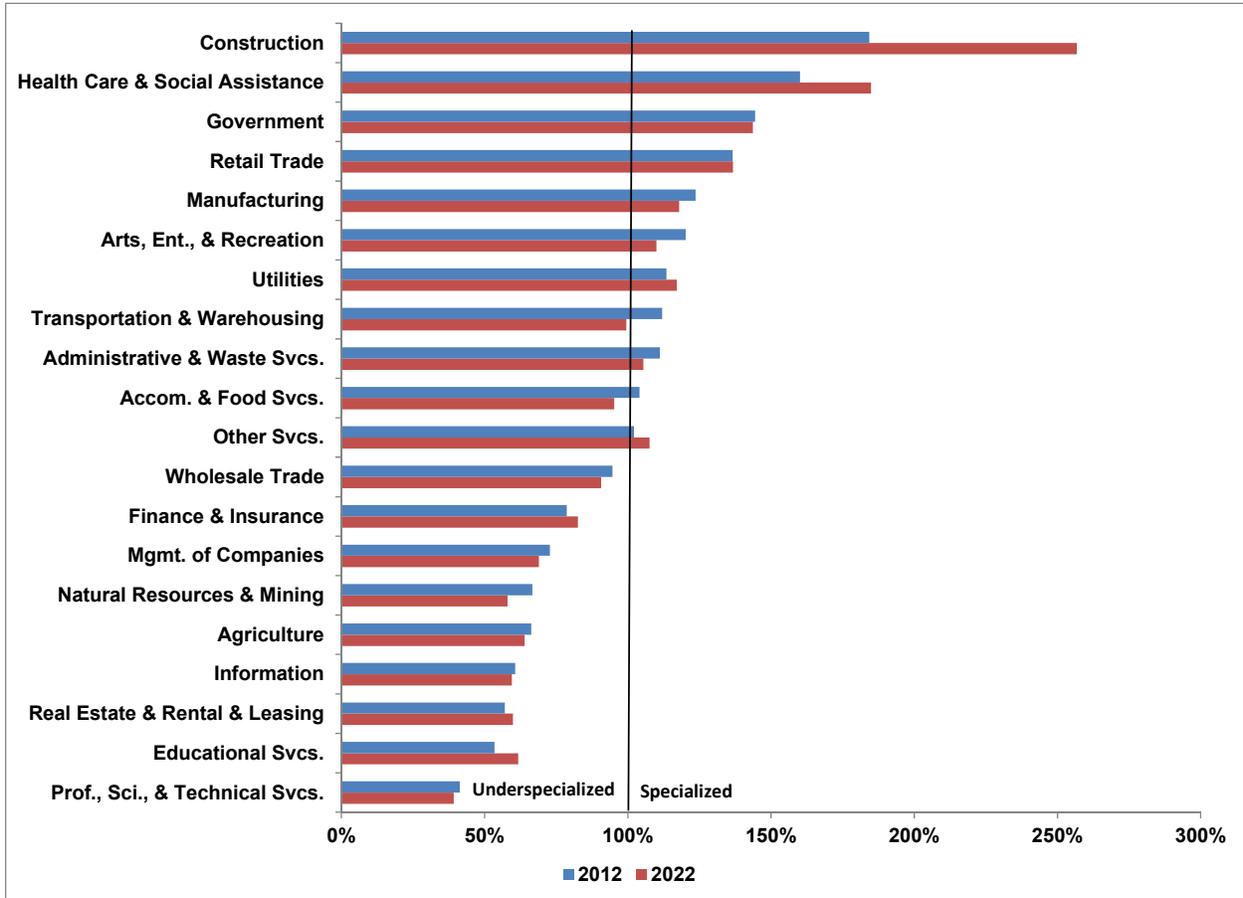
**FIGURE 45**  
**OUTPUT COMPOSITION AND COMPOSITION SHIFT BY INDUSTRY**

Sector	2012 Composition		2022 Composition		2012-2022 Composition Shift	
	Solano County	California	Solano County	California	Solano County	California
	Government	16.4%	11.4%	13.5%	9.4%	-2.9%
Manufacturing	14.9%	12.0%	14.3%	12.1%	-0.6%	0.1%
Health Care & Social Assistance	10.7%	6.7%	11.1%	6.0%	0.3%	-0.7%
Retail Trade	8.5%	6.2%	8.8%	6.4%	0.2%	0.2%
Real Estate & Rental & Leasing	8.4%	14.8%	9.2%	15.3%	0.7%	0.6%
Construction	5.6%	3.0%	7.4%	2.9%	1.9%	-0.1%
Wholesale Trade	5.3%	5.6%	5.6%	6.2%	0.4%	0.7%
Finance & Insurance	4.4%	5.6%	4.5%	5.4%	0.1%	-0.2%
Information	4.4%	7.2%	5.1%	8.6%	0.8%	1.4%
Prof., Sci., & Technical Svcs.	3.9%	9.3%	3.8%	9.6%	-0.1%	0.3%
Administrative & Waste Svcs.	3.3%	3.0%	3.2%	3.0%	-0.2%	0.0%
Accom. & Food Svcs.	2.9%	2.8%	2.9%	3.0%	0.0%	0.2%
Transportation & Warehousing	2.5%	2.2%	2.6%	2.6%	0.1%	0.4%
Other Svcs.	2.1%	2.1%	1.7%	1.6%	-0.4%	-0.5%
Arts, Ent., & Recreation	1.6%	1.4%	1.7%	1.5%	0.1%	0.2%
Utilities	1.6%	1.4%	1.7%	1.4%	0.1%	0.0%
Agriculture	1.1%	1.6%	0.8%	1.2%	-0.3%	-0.4%
Mgmt. of Companies	1.1%	1.5%	1.0%	1.4%	-0.1%	0.0%
Natural Resources & Mining	0.8%	1.2%	0.7%	1.1%	-0.1%	0.0%
Educational Svcs.	0.6%	1.0%	0.6%	1.0%	0.0%	-0.1%

Center for Strategic Economic Research, October 2013  
Data Source: Moody’s Analytics

Figure 46 shows that, in 2012, 11 sectors in the county showed specialization in terms of output relative to California, led by Construction and Health Care & Social Assistance. The remaining sectors are underspecialized with Professional, Scientific, & Technical Services and Information (a sector which is associated with all of the county’s focus clusters) showing the lowest levels of specialization. By 2022, two sectors, Transportation & Warehousing and Accommodation & Food Services (one of the sectors aligned with the Food Chain cluster), are anticipated to see a negative shift in this indicator bringing them to a level of underspecialization while Construction and Health Care & Social Assistance will see significant increases in their levels of specialization.

FIGURE 46  
SOLANO COUNTY OUTPUT SPECIALIZATION BY INDUSTRY



Center for Strategic Economic Research, October 2013

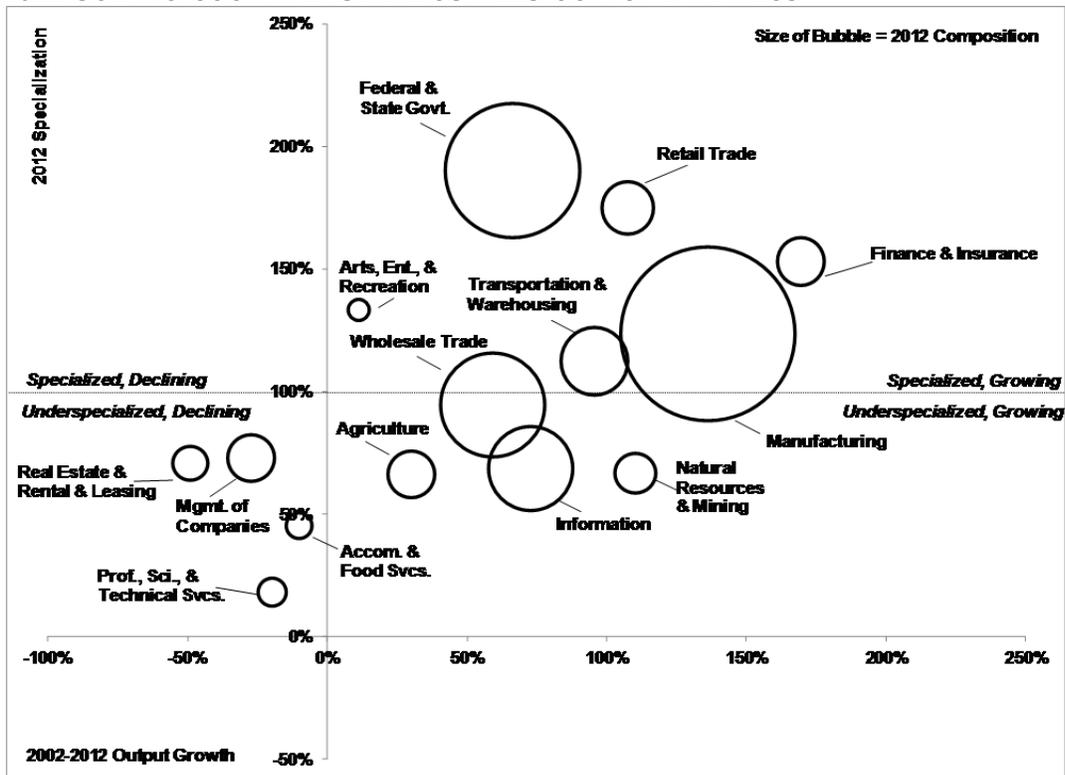
Data Source: Moody’s Analytics

Notes: A measure of 100 percent means that Solano County has the same share of total employment in the industry as California.

Does not include military employment.

Figures 47 (below) and 48 (on the following page) provide output dynamics of the county’s economic base industries and details on the mix of its base and local-serving activities. From 2002 to 2012, the county output supported by base activities grew nearly 74 percent and accounted for around 41 percent of total output in 2012. In comparison, county local-serving output grew 37 percent in this ten-year time period and accounted for almost 59 percent of 2012 total output. Similar to the base employment dynamics, the largest proportions of base component output are within the Manufacturing and Government sectors, combined accounting for approximately 57 percent of the county’s total base output in 2012. Base output of Government is highly specialized relative to the state and had relatively strong output growth (around 66 percent) from 2002 to 2012. Manufacturing’s base output component is also specialized, to a lesser extent than Government, but experienced stronger growth (136 percent) in output since 2002. With this level of specialization and output growth, economic development efforts to further develop the Manufacturing sector would benefit the all of the county’s focus clusters. Output grew in all of the local-serving components from 2002 to 2012 and within the majority of base components—base components of only four sectors (Real Estate & Rental & Leasing; Professional, Scientific, & Technical Services; Management of Companies; and Accommodation & Food Services) saw output decline in this time period. Professional, Scientific, & Technical Services is a component of all focus clusters while Accommodation & Food Services is associated with the Food Chain cluster. All four of these declining sectors are also underspecialized, therefore efforts to nurture and grow these industries should be considered.

FIGURE 47  
2012 SOLANO COUNTY BASE INDUSTRIES OUTPUT DYNAMICS



Center for Strategic Economic Research, October 2013  
 Data Sources: CSER estimates based on Moody’s Economy.com and IMPLAN, 2011 Coefficients  
 Note: Does not include military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

FIGURE 48  
2012 SOLANO COUNTY BASE AND LOCAL SECTORS OUTPUT DYNAMICS

Sector	2012 Output (in \$Millions)		2002-2012 % Growth		2007-2012 % Growth	
	Base	Local	Base	Local	Base	Local
Agriculture	\$169.1	-	30.2%	-	20.1%	-
Natural Resources & Mining	\$122.8	-	110.3%	-	-16.6%	-
Utilities	-	\$245.3	-	62.8%	-	26.4%
Construction	-	\$873.7	-	0.7%	-	-18.5%
Manufacturing	\$2,332.7	-	136.3%	-	13.9%	-
Wholesale Trade	\$826.1	-	59.0%	-	21.7%	-
Retail Trade	\$210.3	\$1,126.8	107.5%	9.5%	4.3%	-0.4%
Transportation & Warehousing	\$347.2	\$44.2	95.5%	36.1%	-6.0%	-19.6%
Information	\$530.9	\$154.5	72.8%	125.0%	50.3%	1.9%
Finance & Insurance	\$173.9	\$517.9	169.5%	30.5%	-1.7%	19.5%
Real Estate & Rental & Leasing	\$91.1	\$1,233.2	-49.1%	18.6%	-43.0%	-32.0%
Prof., Sci., & Technical Svcs.	\$60.6	\$544.3	-19.8%	81.0%	32.1%	10.6%
Mgmt. of Companies	\$165.9	-	-27.3%	-	25.9%	-
Administrative & Waste Svcs.	-	\$521.1	-	54.9%	-	17.1%
Educational Svcs.	-	\$87.5	-	110.4%	-	4.7%
Health Care & Social Assistance	-	\$1,682.3	-	101.9%	-	42.3%
Arts, Ent., & Recreation	\$31.5	\$223.5	11.2%	187.0%	-7.0%	54.5%
Accom. & Food Svcs.	\$48.6	\$413.1	-10.2%	45.3%	5.2%	13.3%
Other Svcs.	-	\$333.0	-	33.0%	-	10.7%
Government	\$1,386.8	\$1,191.2	66.2%	19.4%	30.7%	-8.9%
<b>Total</b>	<b>\$6,497.7</b>	<b>\$9,191.5</b>	<b>73.5%</b>	<b>37.0%</b>	<b>16.1%</b>	<b>0.2%</b>
Percent Total	41.4%	58.6%				

Center for Strategic Economic Research, October 2013

Data Sources: CSER estimates based on Moody's Economy.com and IMPLAN, 2011 Coefficients

Note: Does not include military output.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Figure 49 shows that, at just over \$1 million in 2012, the Real Estate & Rental & Leasing industry sector generates the greatest total output per employee in the county, lower than California's value of around \$1.2 million for that sector. This was the case in 2002 and this sector is projected to continue to lead the other industries' output per employee value in 2022. The county's Information sector had the second-highest output per employee value in 2012 (approximately \$612,000) and also exceeded the statewide average of nearly \$343,000 for that sector. Sectors in the top half of the list can be considered output-driven and future growth could require less employment demand as most are expected to see productivity increase notably.

FIGURE 49  
OUTPUT PER EMPLOYEE (SORTED BY 2012 SOLANO COUNTY VALUES)

Sector	2002		2012		2022	
	Solano County	California	Solano County	California	Solano County	California
Real Estate & Rental & Leasing	\$654,131	\$818,411	\$1,017,111	\$1,205,128	\$1,474,528	\$1,790,375
Information	\$208,696	\$181,083	\$611,960	\$342,595	\$987,759	\$583,364
Utilities	\$339,311	\$355,993	\$466,416	\$476,041	\$737,536	\$792,042
Natural Resources & Mining	\$300,897	\$299,518	\$463,268	\$851,514	\$603,896	\$1,360,075
Manufacturing	\$98,577	\$87,298	\$233,251	\$196,547	\$359,677	\$325,104
Prof., Sci., & Technical Svcs.	\$131,181	\$122,494	\$194,117	\$172,827	\$258,728	\$241,167
Wholesale Trade	\$128,833	\$120,361	\$193,423	\$168,412	\$305,612	\$287,103
Finance & Insurance	\$163,724	\$161,013	\$186,430	\$219,235	\$234,135	\$288,633
Mgmt. of Companies	\$94,346	\$96,214	\$171,020	\$147,309	\$238,801	\$214,400
Administrative & Waste Svcs.	\$52,576	\$45,526	\$113,907	\$65,768	\$131,415	\$76,050
Construction	\$79,406	\$77,465	\$110,339	\$105,064	\$123,601	\$122,670
Government	\$69,398	\$64,885	\$106,821	\$98,231	\$125,992	\$120,687
Agriculture	\$51,172	\$58,442	\$106,743	\$149,803	\$118,625	\$184,658.38
Arts, Ent., & Recreation	\$50,030	\$76,284	\$96,631	\$106,768	\$129,642	\$161,039
Health Care & Social Assistance	\$61,102	\$60,337	\$94,935	\$88,843	\$107,850	\$104,046
Transportation & Warehousing	\$81,344	\$78,713	\$93,928	\$106,813	\$152,551	\$185,586
Other Svcs.	\$67,498	\$68,461	\$85,300	\$84,110	\$92,480	\$94,314
Retail Trade	\$63,754	\$64,216	\$79,711	\$81,694	\$124,246	\$131,062
Educational Svcs.	\$45,201	\$44,492	\$57,035	\$63,652	\$68,228	\$81,272
Accom. & Food Svcs.	\$33,315	\$34,426	\$42,953	\$43,228	\$56,768	\$59,033
Total	\$84,586	\$93,511	\$129,682	\$140,083	\$169,473	\$196,814

Center for Strategic Economic Research, October 2013  
Data Source: Moody's Analytics

## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

With a 2011 gross value of around \$36.6 million and nearly 13 percent of total value, English Walnuts top the list of the county's agriculture commodities, shown in Figure 50. Alfalfa Hay and Vegetables round out the top three, each with between 10 and 11 percent of total gross value.<sup>+</sup>

**FIGURE 50**  
**2011 LEADING SOLANO COUNTY**  
**COMMODITIES BY GROSS VALUE OF**  
**AGRICULTURAL PRODUCTION**

<i>Rank</i>	<i>Commodity</i>	<i>Gross Value (in \$1,000s)</i>	<i>% of Total</i>
1	Walnuts, English	\$36,597	12.5%
2	Hay, Alfalfa	\$33,183	11.4%
3	Vegetables, Unspecified	\$29,342	10.1%
4	Tomatoes, Processing	\$24,327	8.3%
5	Nursery Products, Misc.	\$23,630	8.1%
6	Cattle & Calves, Unspecified	\$22,031	7.6%
7	Milk, Market, Fluid	\$16,740	5.7%
8	Wheat, All	\$14,400	4.9%
9	Corn, Grain	\$12,882	4.4%
10	Sunflower Seed, Planting	\$10,515	3.6%
	Total*	\$291,677	0.6%

Center for Strategic Economic Research, October 2013

Data Source: California Department of Food and Agriculture

\*Percent of total is proportion of California's total gross value of agricultural production.

<sup>+</sup> It is important to note that the total crop valuation is higher than the estimated Agriculture sector output presented in Figure 43 due to variations in accounting of value and source methodologies.

Figure 51 shows that, in 2013, full- and part-time proprietor’s (small business owner) income for Solano County totaled nearly \$841 million. From 2003 through 2013, proprietor’s income fell at a lower rate in the county (about -4 percent) than California (around -9 percent). Positive growth is forecast over the next 10 years—approximately 23 percent for the county, which is below the projected statewide growth rate of almost 26 percent.

**FIGURE 51**  
**PROPRIETOR’S INCOME (IN MILLIONS OF DOLLARS)**

<i>Area</i>	<i>2003</i>	<i>2013</i>	<i>2023</i>	<i>% Change 2003-2013</i>	<i>% Change 2013-2023</i>
Solano County	\$878.7	\$840.9	\$1,036.4	-4.3%	23.2%
California	\$160,530.4	\$145,455.1	\$183,087.4	-9.4%	25.9%

Center for Strategic Economic Research, October 2013  
 Data Source: Woods & Poole Economics

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Of Solano County’s nearly 9,700 establishments in 2012, about 51 percent of them were in the Other Services; Retail Trade; and Health Care & Social Assistance sectors, as shown in Figure 52. Establishments in the Other Services; Professional, Scientific, & Technical Services; and Health Care & Social Assistance sectors comprise the greatest proportion in the Rest of ABAG. Other Services and Professional, Scientific, & Technical Services establishments also comprised the largest shares in the Sacramento Region and California while Government and Retail Trade rounded out the top three in the Sacramento Region and the state, respectively.

Among Solano County communities, Fairfield and Vallejo have the largest proportion of total establishments, nearly 25 percent each or combined, half of the county’s establishments. They also have the largest proportion of establishments by major sector—eight in Fairfield and ten in Vallejo. Rio Vista has the largest share of establishments in the Natural Resources & Mining sector.

**FIGURE 52  
ESTABLISHMENT COMPOSITION BY INDUSTRY  
(SORTED BY 2012 SOLANO COUNTY COMPOSITION)**

Sector	2002				2007				2012			
	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California
Other Svcs.	28.1%	24.9%	27.1%	27.9%	32.1%	30.2%	33.3%	33.1%	32.9%	34.0%	34.1%	35.6%
Retail Trade	11.5%	9.3%	9.1%	9.3%	10.1%	8.3%	7.6%	7.9%	9.8%	7.1%	7.1%	7.2%
Health Care & Social Assistance	8.1%	7.7%	6.7%	7.2%	7.9%	7.6%	6.2%	6.8%	8.1%	7.3%	6.7%	7.0%
Accom. & Food Svcs.	7.0%	6.4%	5.6%	5.6%	6.6%	6.3%	5.3%	5.2%	6.7%	6.2%	5.2%	5.3%
Construction	8.6%	7.2%	8.3%	6.4%	8.0%	6.7%	7.7%	6.0%	6.5%	5.1%	5.8%	4.7%
Prof., Sci., & Technical Svcs.	6.2%	12.9%	7.8%	9.4%	5.9%	12.1%	7.8%	9.1%	5.3%	11.2%	7.7%	8.9%
Government	4.3%	2.3%	11.0%	2.8%	4.6%	2.0%	9.5%	2.4%	5.2%	1.9%	9.5%	2.6%
Unclassified	2.2%	1.0%	0.5%	1.9%	0.5%	1.7%	0.8%	3.2%	3.6%	5.0%	4.2%	5.3%
Administrative & Waste Svcs.	4.4%	4.4%	3.7%	3.9%	3.9%	3.8%	3.4%	3.4%	3.4%	3.4%	3.3%	3.2%
Real Estate & Rental & Leasing	3.9%	4.0%	3.7%	3.7%	3.8%	4.0%	3.6%	3.5%	3.3%	3.3%	3.1%	3.1%
Finance & Insurance	3.5%	4.5%	4.0%	3.9%	3.9%	4.5%	4.1%	3.9%	3.2%	3.6%	3.5%	3.2%
Wholesale Trade	3.1%	4.5%	2.6%	5.1%	3.1%	3.7%	2.4%	4.8%	2.9%	3.5%	2.2%	4.4%
Manufacturing	3.4%	4.7%	2.7%	4.7%	2.9%	3.6%	2.2%	3.5%	2.7%	3.0%	1.8%	3.0%
Transportation & Warehousing	-	0.8%	1.5%	1.6%	1.9%	0.6%	1.3%	1.5%	1.8%	0.8%	1.2%	1.4%
Agriculture	2.3%	0.7%	2.4%	2.0%	1.6%	0.7%	1.7%	1.4%	1.5%	0.5%	1.6%	1.2%
Arts, Ent., & Recreation	1.1%	1.0%	0.9%	1.4%	1.0%	1.1%	0.8%	1.4%	1.0%	0.9%	0.8%	1.3%
Educational Svcs.	0.8%	1.1%	0.8%	0.8%	0.8%	1.1%	0.8%	0.8%	0.8%	1.2%	0.8%	0.9%
Information	0.9%	2.1%	1.2%	2.0%	0.8%	1.5%	0.9%	1.5%	0.7%	1.4%	0.8%	1.4%
Mgmt. of Companies	0.5%	0.5%	0.4%	0.4%	0.3%	0.4%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%
Utilities	-	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%
Natural Resources & Mining	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%

Center for Strategic Economic Research, October 2013

Data Source: Moody’s Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Notes: Solano County 2002 establishment data not disclosed for Transportation & Warehousing and Utilities. Does not include military employment.

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Figure 53 shows the average employment size of establishments by major sector in the county and the comparison areas. In the years represented and on average, the county's establishments employed between 13 and 14 people, in comparison to between 12 and 14 for the Rest of ABAG, and between 11 and 13 for the Sacramento Region and California. The Government and Utilities sectors generally support the largest number of employees while the Real Estate & Rental & Leasing and Other Services sectors support the smallest number of employees in all areas.

**FIGURE 53  
AVERAGE EMPLOYEES PER ESTABLISHMENT BY INDUSTRY  
(SORTED BY 2012 SOLANO COUNTY AVERAGE)**

Sector	2002				2007				2012			
	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California
Government	72	83	31	79	59	89	31	79	48	80	29	70
Utilities	-	64	25	45	34	51	27	50	48	79	30	50
Manufacturing	35	38	30	31	38	40	26	33	39	39	26	32
Natural Resources & Mining	19	22	15	25	42	30	15	32	38	27	10	38
Arts, Ent., & Recreation	22	21	23	15	24	20	22	14	29	21	24	15
Mgmt. of Companies	58	67	44	61	35	59	37	50	27	64	41	47
Transportation & Warehousing	-	30	22	24	24	29	23	24	24	30	21	23
Health Care & Social Assistance	20	16	17	16	20	16	19	16	23	17	19	17
Educational Svcs.	13	27	18	27	19	27	20	28	19	28	22	29
Retail Trade	18	16	17	15	19	17	18	16	18	17	18	16
Accom. & Food Svcs.	17	17	18	19	17	18	19	19	17	18	18	19
Information	22	26	30	22	21	31	29	24	16	33	23	23
Wholesale Trade	15	13	14	12	14	13	13	11	15	13	13	12
Administrative & Waste Svcs.	17	18	19	21	19	21	20	23	14	21	20	22
Construction	15	11	12	11	14	11	12	11	13	10	9	9
Finance & Insurance	9	15	16	13	9	13	15	12	12	13	14	12
Agriculture	13	12	8	15	11	12	10	13	11	12	11	13
Prof., Sci., & Technical Svcs.	5	10	8	9	6	12	9	9	6	12	9	9
Real Estate & Rental & Leasing	6	7	6	7	6	6	6	6	4	6	5	6
Other Svcs.	2	2	2	2	1	2	2	1	1	2	2	1
Unclassified	-	26	17	-	-	15	10	-	-	2	2	-
Total All Industries	14	14	13	13	13	14	12	12	13	12	11	11

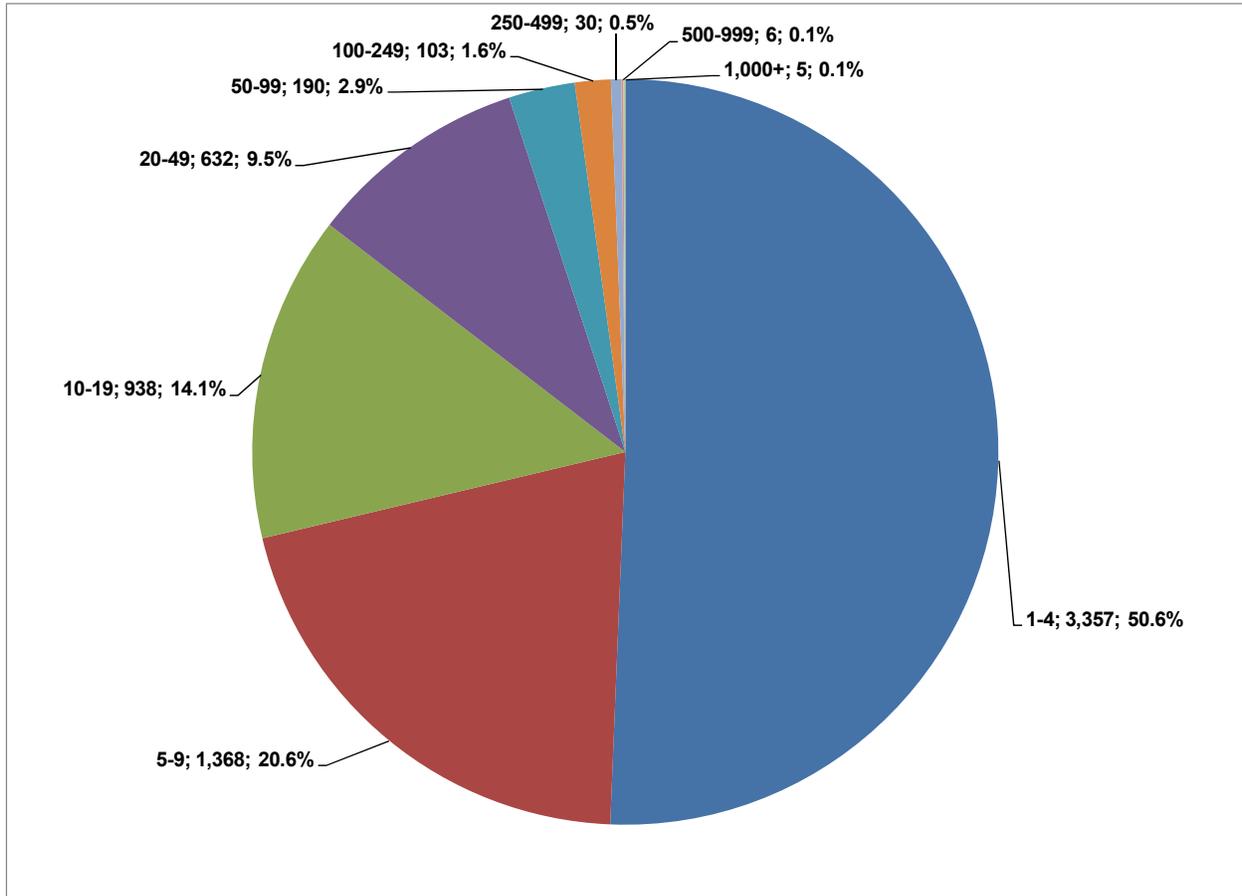
Center for Strategic Economic Research, October 2013

Data Source: Moody's Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Note: Does not include military employment.

Around 51 percent of Solano County’s establishments employ between one and four employees, as shown in Figure 54, followed by those with between five and nine employees—combined accounting for over 71 percent of all the county establishments (in comparison, 74 percent of California’s total establishments employ less than employees).

FIGURE 54  
2011 SOLANO COUNTY ESTABLISHMENTS BY EMPLOYMENT SIZE



Center for Strategic Economic Research, October 2013  
Data Source: U.S. Census Bureau, 2011 County Business Patterns

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Figure 55 breaks down the proportion of establishments in various business size groupings for Solano County, its communities, the Rest of ABAG, the Sacramento Region, and California. The county has a much smaller proportion of very small-sized establishments (the 1-4 employees category)—around 51 percent compared to around 55 percent in the Rest of ABAG, 54 percent in the Sacramento Region, and 56 percent in California. The difference is made up in the 5-9, 10-19, and 20-49 employees categories. Vallejo, Suisun City, and Dixon have the shares of establishments in the 1-4 employees category.

**FIGURE 55**  
**2011 COMPOSITION OF ESTABLISHMENTS BY BUSINESS SIZE**

Area	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+
Solano County	50.6%	20.6%	14.1%	9.5%	2.9%	1.6%	0.5%	0.1%	0.1%
Dixon	52.2%	20.5%	12.0%	9.4%	2.9%	2.1%	0.9%	0.0%	0.0%
Benicia	50.5%	19.5%	15.3%	10.1%	2.6%	1.6%	0.2%	0.1%	0.0%
Rio Vista	51.8%	21.3%	14.9%	9.9%	1.4%	0.7%	0.0%	0.0%	0.0%
Suisun City	52.4%	19.3%	12.8%	9.8%	3.4%	1.4%	0.8%	0.0%	0.0%
Vacaville	48.7%	21.8%	15.2%	9.2%	2.8%	1.6%	0.4%	0.2%	0.1%
Vallejo	53.6%	19.8%	12.8%	9.2%	2.9%	1.1%	0.3%	0.1%	0.2%
Fairfield	49.2%	20.8%	14.1%	9.9%	3.2%	2.1%	0.7%	0.1%	0.1%
Rest of ABAG	55.4%	18.4%	12.5%	8.5%	3.1%	1.6%	0.4%	0.2%	0.1%
Sacramento Region	54.2%	19.2%	13.0%	8.7%	2.7%	1.6%	0.3%	0.1%	0.1%
California	56.4%	18.0%	12.2%	8.4%	2.9%	1.5%	0.4%	0.1%	0.1%

Center for Strategic Economic Research, October 2013  
Data Source: U.S. Census Bureau, 2011 County Business Patterns

**SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE**

Establishments by major sector, displayed in Figure 56, shows that only nine of Solano County's industry sectors experienced growth from 2002 to 2012. The highest growth rates of establishments classified under an industry sector were seen in the relatively large Government and Other Services sectors, 36 percent and about 33 percent, respectively, while the most rapid declines were seen in the rather small Agriculture and Natural Resources & Mining sectors, around -26 percent and -30 percent respectively. Other Services establishments saw the highest growth rates in the Rest of ABAG, the Sacramento Region, and California while the sectors which experienced the greatest decline in establishments in each of these areas were Natural Resources & Mining in Rest of ABAG, Utilities in the Sacramento Region, and Agriculture in California.

**FIGURE 56  
ESTABLISHMENT GROWTH BY INDUSTRY  
(SORTED BY SOLANO COUNTY 2012 TOTAL ESTABLISHMENTS)**

Sector	2012 Total	2007-2012				2002-2012			
	Solano County	Solano County	Rest of ABAG	Sacramento Region	California	Solano County	Rest of ABAG	Sacramento Region	California
Other Svcs.	3,178	1.8%	24.1%	2.6%	11.1%	32.5%	59.4%	50.2%	53.3%
Retail Trade	950	-3.3%	-5.9%	-6.2%	-6.1%	-3.5%	-10.7%	-6.3%	-6.8%
Health Care & Social Assistance	786	1.8%	6.6%	7.4%	6.9%	13.4%	11.5%	19.3%	17.6%
Accom. & Food Svcs.	648	0.6%	8.3%	-1.6%	4.4%	9.1%	14.0%	11.0%	13.7%
Construction	624	-20.1%	-15.9%	-24.3%	-18.8%	-15.4%	-16.5%	-16.0%	-10.8%
Prof., Sci., & Technical Svcs.	510	-10.4%	2.9%	-0.5%	1.8%	-3.0%	2.3%	17.5%	14.3%
Government	499	11.1%	5.2%	-0.2%	8.3%	36.0%	-2.8%	2.7%	10.4%
Unclassified	343	600.0%	226.6%	422.2%	67.5%	83.4%	506.0%	946.1%	229.6%
Administrative & Waste Svcs.	329	-13.4%	-3.1%	-2.9%	-2.4%	-12.5%	-10.5%	5.2%	-1.3%
Real Estate & Rental & Leasing	317	-14.3%	-8.8%	-11.8%	-9.8%	-4.8%	-5.3%	-0.3%	0.9%
Finance & Insurance	312	-17.5%	-12.4%	-15.6%	-14.7%	4.0%	-6.3%	4.9%	-0.4%
Wholesale Trade	276	-9.5%	3.5%	-9.8%	-5.7%	4.9%	-9.5%	0.5%	4.3%
Manufacturing	259	-7.2%	-8.0%	-15.2%	-10.9%	-10.7%	-24.9%	-18.8%	-24.0%
Transportation & Warehousing	177	-4.3%	46.9%	-9.2%	-3.4%	-	22.3%	-5.8%	0.6%
Agriculture	142	-10.7%	-9.4%	-7.5%	-8.5%	-26.4%	-1.8%	-23.2%	-24.5%
Arts, Ent., & Recreation	92	-8.0%	-1.8%	1.3%	-2.5%	-6.1%	7.3%	14.7%	14.2%
Educational Svcs.	81	1.3%	14.0%	2.2%	12.0%	14.1%	27.3%	19.7%	28.2%
Information	69	-5.5%	1.0%	-11.1%	-3.5%	-14.8%	-22.3%	-15.3%	-15.9%
Mgmt. of Companies	36	24.1%	1.0%	4.9%	4.1%	-14.3%	-6.4%	-3.4%	-1.9%
Utilities	11	-15.4%	40.0%	-29.9%	2.1%	-	10.5%	-28.9%	-3.0%
Natural Resources & Mining	7	0.0%	0.0%	-7.1%	-1.7%	-30.0%	-25.6%	0.0%	-8.5%
Total All Industries	9,646	-0.8%	10.3%	0.2%	3.5%	12.9%	17.0%	19.1%	20.3%

Center for Strategic Economic Research, October 2013

Data Source: Moody's Analytics and California Employment Development Department Quarterly Census of Employment and Wages (QCEW)

Note: Does not include military employment.

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Figure 57 shows that the number of residents in Solano County who are self-employed generally remained the same between 2006 and 2011 (only a 0.1 percent increase). In 2011, the Other Services, Professional, Scientific & Technical Services; and Health Care & Social Assistance sectors comprised the largest proportion of nonemployers. Nonemployer establishments increased in ten sectors with the largest growth rates occurring within Manufacturing (35 percent); Accommodation & Food Services (about 31 percent); and Natural Resources & Mining (30 percent). Declines in self-employment occurred primarily within Finance & Insurance (-31 percent); Real Estate, Rental & Leasing (almost -31 percent); and Utilities (approximately -13 percent).

FIGURE 57  
SOLANO COUNTY NONEMPLOYER STATISTICS

Sector	2006		2011		% Change 2006-2011
	Employment	% of Total	Employment	% of Total	
Total	21,272	-	21,289	-	0.1%
Other Svcs.	3,068	14.4%	3,547	16.7%	15.6%
Prof., Sci., & Technical Svcs.	2,893	13.6%	3,078	14.5%	6.4%
Health Care & Social Assistance	2,305	10.8%	2,341	11.0%	1.6%
Retail Trade	2,226	10.5%	2,115	9.9%	-5.0%
Administrative & Waste Svcs.	1,645	7.7%	2,031	9.5%	23.5%
Real Estate & Rental & Leasing	2,930	13.8%	2,024	9.5%	-30.9%
Construction	1,843	8.7%	1,751	8.2%	-5.0%
Arts, Ent., & Recreation	1,003	4.7%	1,146	5.4%	14.3%
Transportation & Warehousing	909	4.3%	879	4.1%	-3.3%
Educational Svcs.	512	2.4%	525	2.5%	2.5%
Finance & Insurance	697	3.3%	481	2.3%	-31.0%
Accom. & Food Svcs.	249	1.2%	327	1.5%	31.3%
Wholesale Trade	344	1.6%	316	1.5%	-8.1%
Manufacturing	226	1.1%	305	1.4%	35.0%
Information	270	1.3%	275	1.3%	1.9%
Agriculture	107	0.5%	96	0.5%	-10.3%
Natural Resources & Mining	30	0.1%	39	0.2%	30.0%
Utilities	15	0.1%	13	0.1%	-13.3%

Center for Strategic Economic Research, October 2013  
Data Source: U.S. Census Bureau, EPCD

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

As shown in Figure 58, between 2005 and 2010, 480 firms moved into Solano County while 536 moved out. Most of the internal California activity, both into and out of the county, was related to the East Bay, North Bay, and Sacramento Region. While the number of affiliated jobs was essentially a wash, the county saw only 78 percent loss of the economic value, reflected by sales levels, with the outflow replaced by the inflow. A significant share of the activity was to and from other counties in the state (about 85 percent of the inflow and 74 percent of the outflow). Dynamics related to those areas typically viewed as priorities for economic vitality—headquarters locations, manufacturing firms, and professional services firms—all generally show greater levels of inflow over outflow. Despite these positive dynamics, economic development programs and services should be mindful of outflow among these types of firms.

FIGURE 58  
SOLANO COUNTY FIRM MOVEMENT, 2005-2010

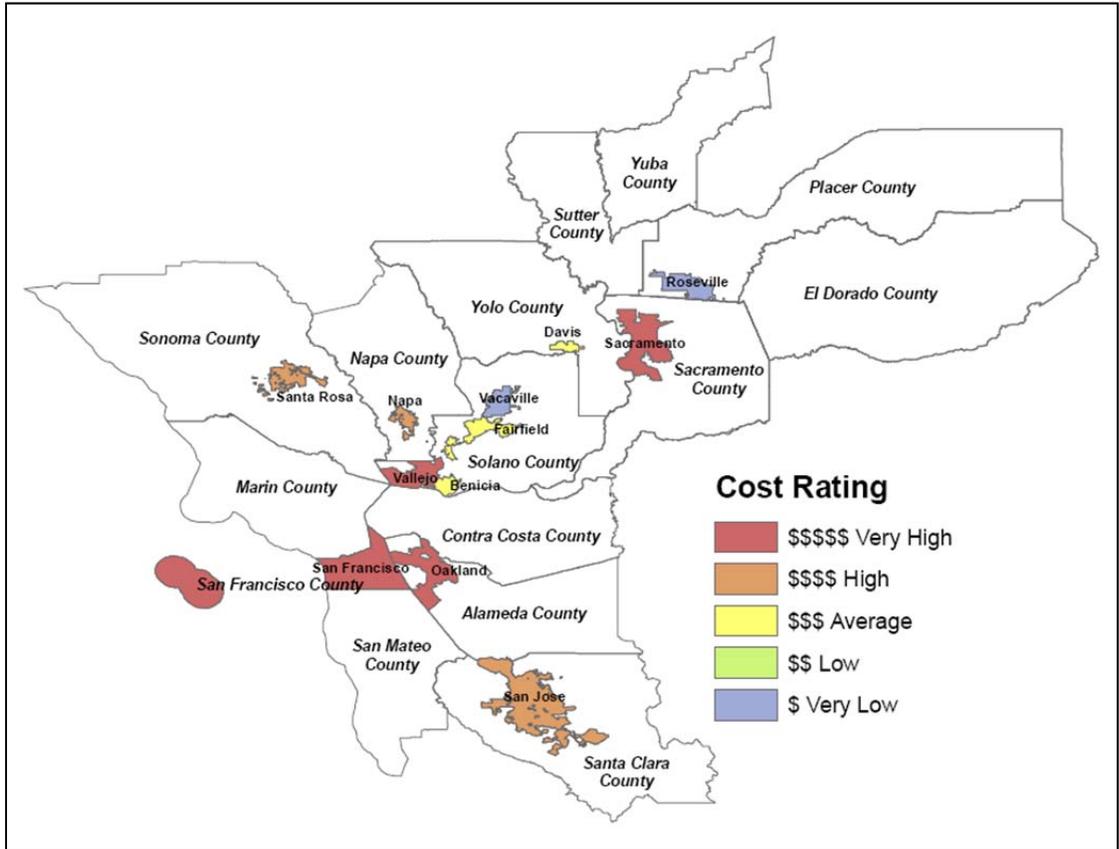
<u>Factor</u>	<u>Move In</u>	<u>Move Out</u>	<u>In-Out Ratio</u>
<u>Total</u>			
Firms	480	536	89.6%
Jobs	3,511	3,432	102.3%
Sales	\$473,406,593	\$608,023,541	77.9%
<u>Other CA Counties</u>			
Firms	410	395	103.8%
Jobs	2,857	2,543	112.3%
Sales	\$340,284,921	\$396,214,520	85.9%
<u>Headquarters</u>			
Firms	30	20	150.0%
Jobs	985	538	183.1%
Sales	\$146,926,185	\$114,628,500	128.2%
<u>Manufacturing</u>			
Firms	34	24	141.7%
Jobs	345	216	159.7%
Sales	\$73,234,676	\$24,117,900	303.7%
<u>Professional Services</u>			
Firms	65	85	76.5%
Jobs	283	235	120.4%
Sales	\$29,675,577	\$22,016,316	134.8%

Center for Strategic Economic Research, October 2013  
Data Source: 2011 National Establishment Time Series (NETS) database  
Note: Analysis includes only firms that were still in business in 2011.

## SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Over 400 local jurisdictions across the country are measured in the *2012 Cost of Doing Business Survey*, which accounts for taxes, fees, and economic development programs as part of the underlying cost comparisons. The Solano County communities, for which data is available, range from a cost of doing business classification of “very low” to “very high,” as presented in Figure 59. Vacaville ranks “very low,” Fairfield and Benicia rank “average,” while Vallejo ranks “very high.” This puts these communities between cost ratings measured in communities within the Rest of ABAG and the Sacramento Region which, for the most part, are classified as either “high” or “very high” cost ratings. The results of this survey demonstrate that communities in the county generally have a regional and broader advantage in terms of cost of doing business.

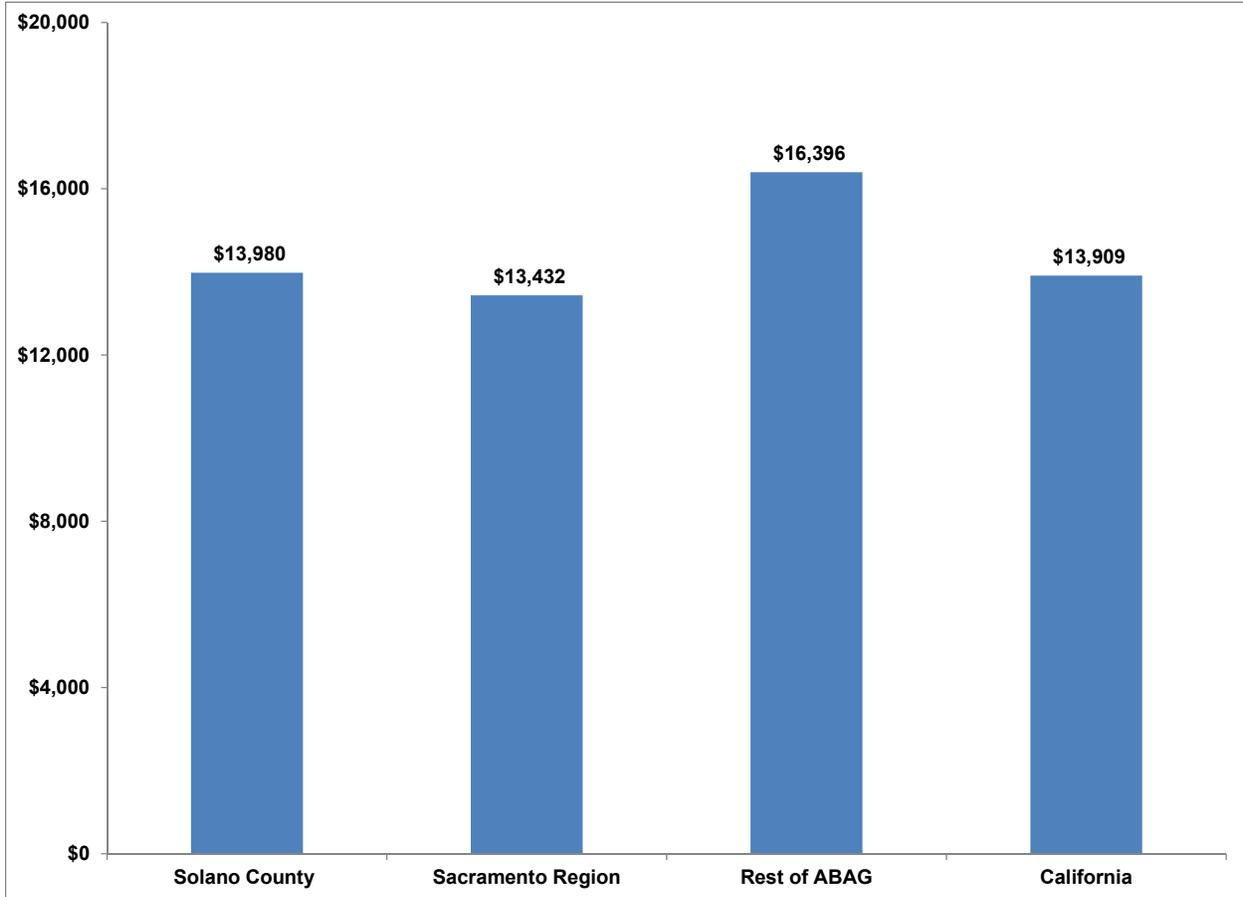
**FIGURE 59**  
**2012 SOLANO COUNTY COST OF DOING BUSINESS MAP**



Center for Strategic Economic Research, October 2013  
 Data Source: Kosmont-Rose Institute, 2012 Cost of Doing Business Survey

At nearly \$14,000 in taxable retail sales per resident, Solano County's 2011 per capita taxable sales fall between the comparison areas of the Sacramento Region, California, and the Rest of ABAG, as shown in Figure 60.

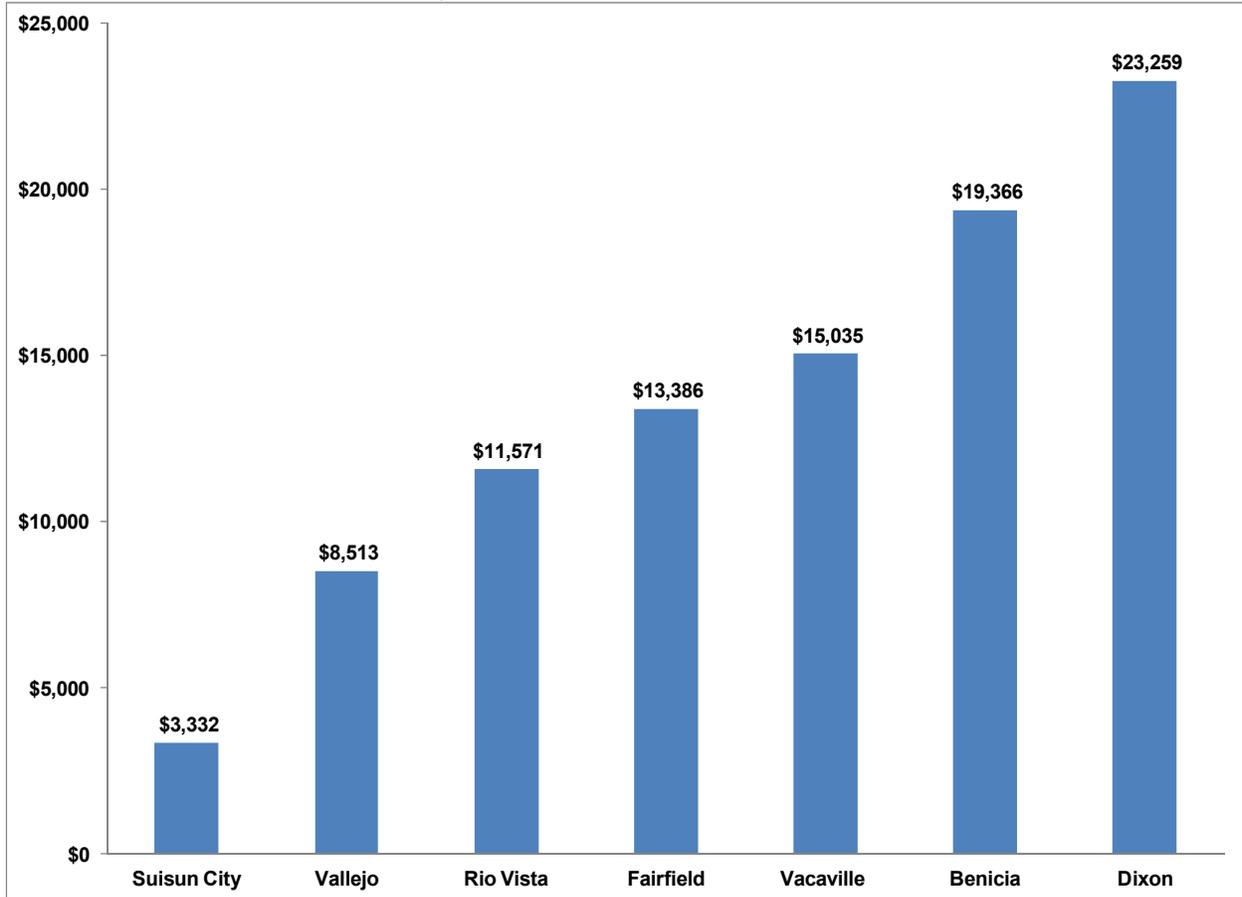
FIGURE 60  
2011 PER CAPITA TAXABLE SALES



Center for Strategic Economic Research, October 2013  
Data Sources: California Board of Equalization and California Department of Finance

Figure 61 shows that, Dixon has the highest per capita taxable sales (over \$23,000) among the Solano County communities which could be attributed to Cardinal Health’s point of sale location. Suisun City, Vallejo, and Rio Vista have the lowest per capita taxable sales, between around \$3,000 and \$12,000, respectively—all below the statewide average.

FIGURE 61  
2011 PER CAPITA TAXABLE SALES, SOLANO COUNTY COMMUNITIES

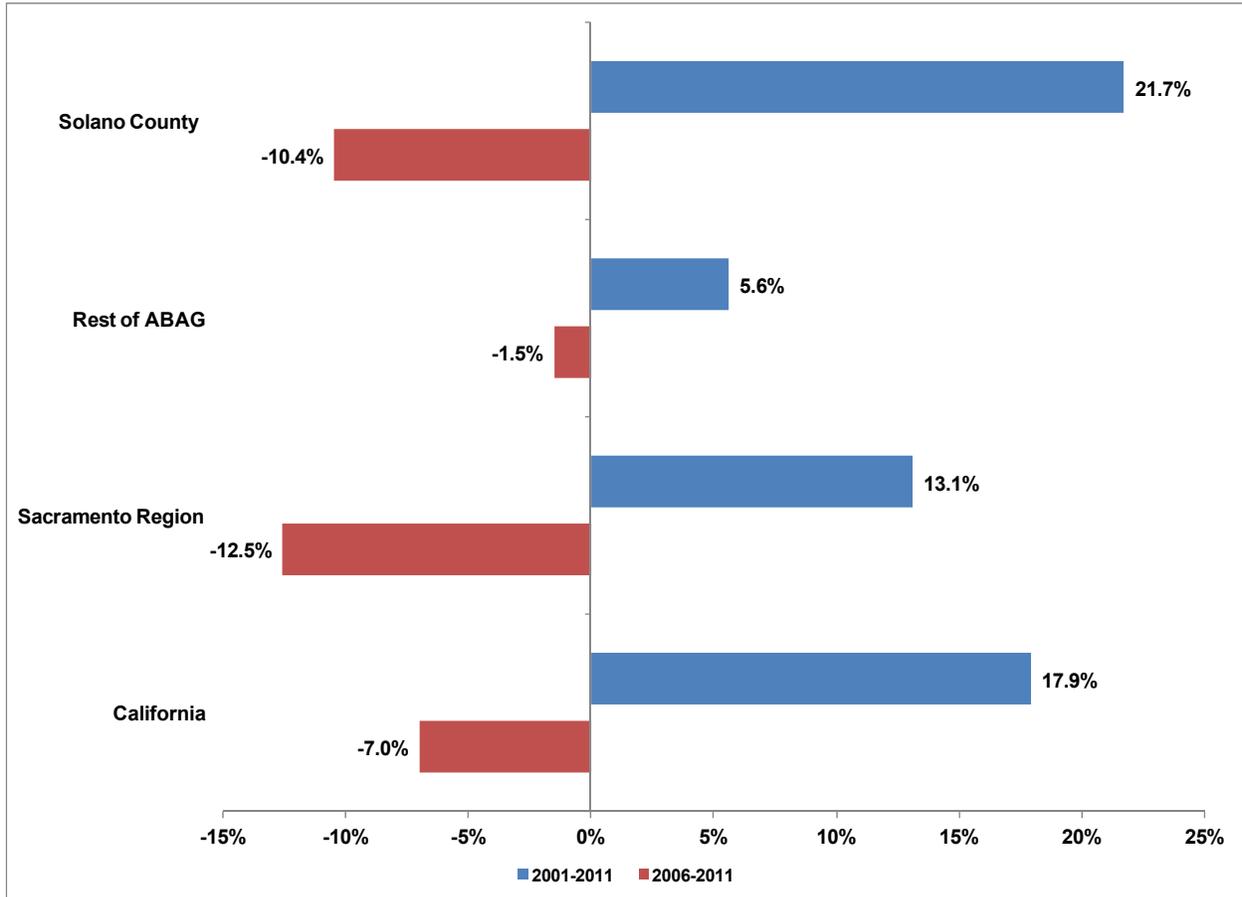


Center for Strategic Economic Research, October 2013  
Data Sources: California Board of Equalization and California Department of Finance

SOLANO COUNTY DEMOGRAPHIC & ECONOMIC PROFILE

Solano County’s taxable sales totaled nearly \$5.8 billion in 2011. Since 2001, the county’s taxable sales increased almost 22 percent, a rate which exceeds that of all comparison areas, as shown in Figure 62. In the five-year time period, the county’s decline in taxable sales was not as severe as seen in the Sacramento Region (nearly -13 percent), but was worse than the Rest of ABAG (almost -2 percent) and California (-7 percent).

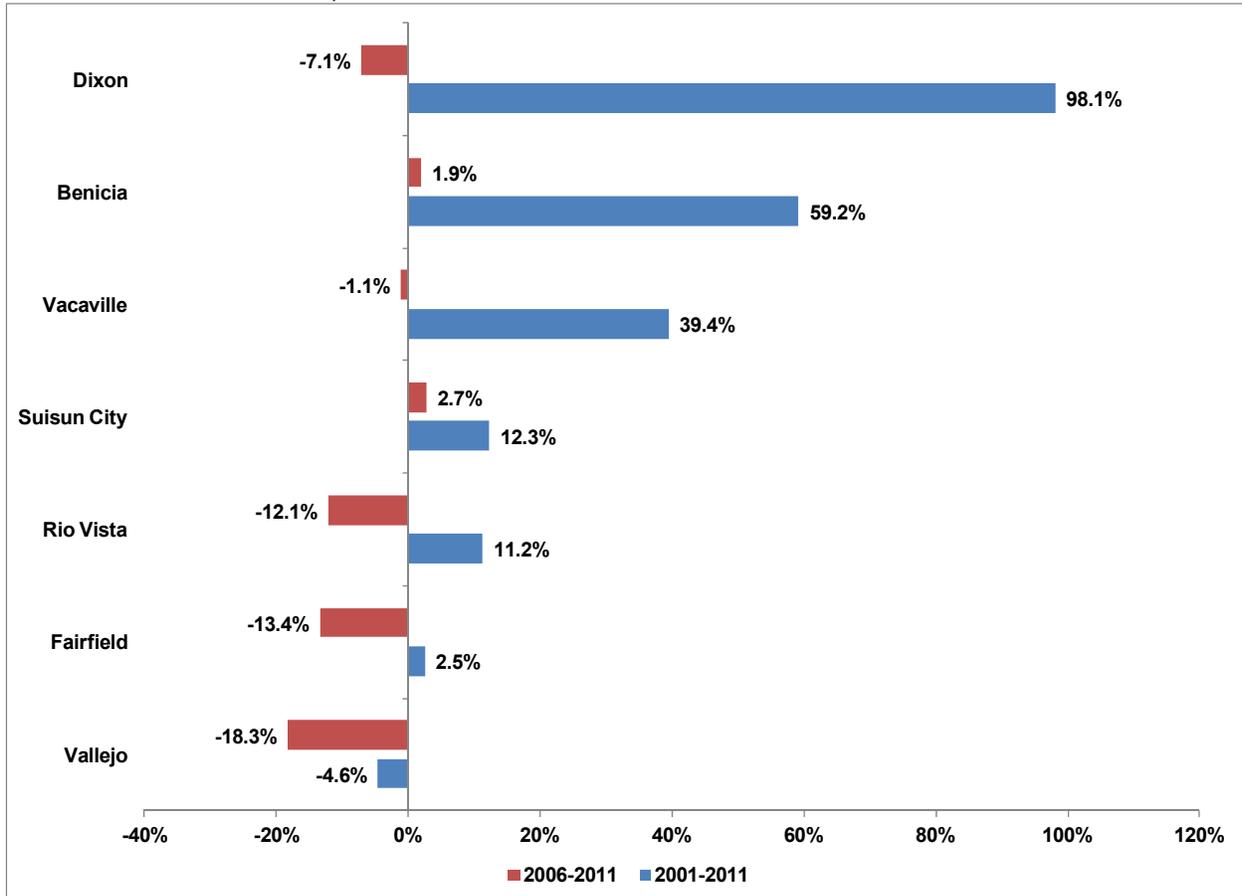
FIGURE 62  
TAXABLE SALES GROWTH



Center for Strategic Economic Research, October 2013  
Data Source: California Board of Equalization

Figure 63 shows that Solano County communities' taxable sales growth from 2001 to 2011 ranged from around -5 percent in Vallejo to around 98 percent in Dixon. All areas, except for Vallejo, experienced positive growth during this time period. In the five-year time period, only Benicia and Suisun City showed positive taxable sales growth.

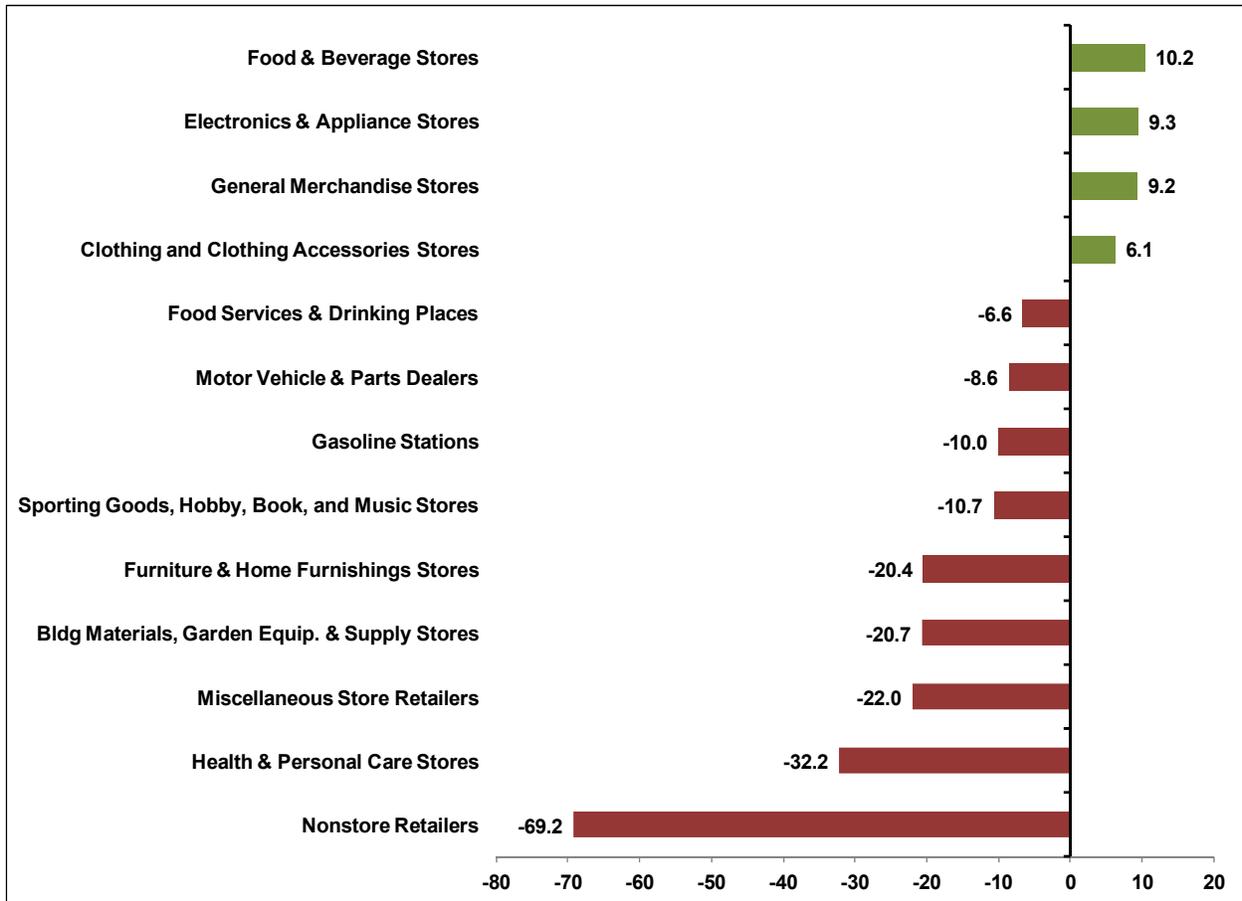
FIGURE 63  
TAXABLE SALES GROWTH, SOLANO COUNTY COMMUNITIES



Center for Strategic Economic Research, October 2013  
Data Source: California Board of Equalization

Resident spending in areas outside of Solano County lead to what is identified as leakages in several retail categories. Figure 64 shows that retail leakage factors (measured on a -/+ 0 to 100 scale) exist in all but four of the major categories based on the gap between expected and actual retail spending activity. The largest leakage factors are shown in the Nonstore Retailers, Health & Personal Care Stores, Miscellaneous Store Retailers categories. Four categories have a retail surplus factor with the largest in Food & Beverage Stores, reflecting the local and regional draw of these types of establishments in the county’s core.

FIGURE 64  
2012 SOLANO COUNTY RETAIL GAP



Center for Strategic Economic Research, October 2013

Data Source: ESRI Business Analyst Online

Note: Leakage (red) and surplus (green) factors are measured on a -/+ 0 to 100 scale with 100 reflecting complete leakage/surplus.

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## APPENDIX B: Market Performance Indicators

Table B-1	Office Inventory
Table B-2	Industrial Inventory
Table B-3	Flex Inventory
Table B-4	Office, Industrial, and R&D/Flex Market Performance Indicators: As of 2Q 2013

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**Table B-1  
Moving SOLANO Forward  
Economic Diversification Strategy  
Office Inventory (2000-2012)**

<b>OFFICE</b>
---------------

Jurisdiction	Total Inventory (Building Sq. Ft)			Total Growth (2000-2012)	Average Annual Growth (2000-2012)	
	2000	2010	2012		Amount	Percent
<b>Solano County</b>						
Benicia	489,449	497,643	496,809	7,360	613	0.12%
Dixon	183,675	183,675	183,675	0	0	0.00%
Fairfield	1,307,976	2,192,448	2,154,839	846,863	70,572	4.25%
Rio Vista	6,396	6,396	6,396	0	0	0.00%
Suisun	96,510	254,492	254,492	157,982	13,165	8.42%
Unincorporated	31,514	0	0	(31,514)	(2,626)	(100.00%)
Vacaville	894,346	1,433,875	1,433,875	539,529	44,961	4.01%
Vallejo	3,485,318	3,544,237	3,544,237	58,919	4,910	0.14%
<b>Total Solano County</b>	<b>6,495,184</b>	<b>8,112,766</b>	<b>8,074,323</b>	<b>1,579,139</b>	<b>131,595</b>	<b>1.83%</b>

"office"

Source: CoStar; EPS.

**Table B-2  
Moving SOLANO Forward  
Economic Diversification Strategy  
Industrial Inventory (2000-2012)**

<b>INDUSTRIAL</b>
-------------------

Jurisdiction	Total Inventory (Building Sq. Ft)			Total Growth (2000-2012)	Average Annual Growth (2000-2012)	
	2000	2010	2012		Amount	Percent
<b>Solano County</b>						
Benicia	7,020,485	8,302,870	8,302,870	1,282,385	106,865	1.41%
Dixon	2,431,126	3,141,248	3,183,248	752,122	62,677	2.27%
Fairfield	8,800,598	11,314,124	11,602,124	2,801,526	233,461	2.33%
Rio Vista	65,592	65,592	65,592	0	0	0.00%
Suisun	452,638	473,875	473,875	21,237	1,770	0.38%
Unincorporated	5,380,527	5,774,668	5,742,939	362,412	30,201	0.54%
Vacaville	894,346	1,433,875	1,433,875	539,529	44,961	4.01%
Vallejo	6,008,829	5,984,499	5,984,499	(24,330)	(2,028)	(0.03%)
<b>Total Solano County</b>	<b>31,054,141</b>	<b>36,490,751</b>	<b>36,789,022</b>	<b>5,734,881</b>	<b>477,907</b>	<b>1.42%</b>

"ind"

Source: CoStar; EPS.

**Table B-3  
Moving SOLANO Forward  
Economic Diversification Strategy  
Flex Inventory (2000-2012) [1]**

FLEX
------

Jurisdiction	Total Inventory (Building Sq. Ft)			Total Growth (2000-2012)	Average Annual Growth (2000-2012)	
	2000	2010	2012		Amount	Percent
<b>Solano County</b>						
Benicia	208,139	279,286	279,286	71,147	5,929	2.48%
Dixon	34,652	91,483	91,483	56,831	4,736	8.43%
Fairfield	1,053,155	1,173,518	1,173,518	120,363	10,030	0.91%
Rio Vista	30,000	30,000	30,000	0	0	0.00%
Suisun	95,010	95,010	95,010	0	0	0.00%
Unincorporated	0	0	0	0	0	0.00%
Vacaville	442,869	480,061	480,061	37,192	3,099	0.67%
Vallejo	365,409	369,952	369,952	4,543	379	0.10%
<b>Total Solano County</b>	<b>2,229,234</b>	<b>2,519,310</b>	<b>2,519,310</b>	<b>290,076</b>	<b>24,173</b>	<b>1.02%</b>

"flex"

Source: CoStar; EPS.

[1] Flex buildings are designed to be versatile, which may be used in combination with office (corporate headquarters), research and development, quasi-retail sales, and including but not limited to industrial, warehouse, and distribution uses. At least half of the rentable area of the building must be used as office space.

**Table B-4**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Office, Industrial and R&D/Flex Market Performance Indicators: As of 2Q2013 (2013\$)**

Jurisdiction	Total Sq. Ft. (Inventory)	Vacant Sq. Ft. [1]	Vacancy Rate	Average Lease Rate (\$2013) [2]	Net Absorption (1Q09-2Q13)
<b>Office</b>					
<b>Solano County</b>					
Benicia	496,809	14,955	3%	\$1.45	(2,385)
Dixon	181,704	13,339	7%	\$1.05	(3,862)
Fairfield	2,154,839	274,286	13%	\$1.85	12,714
Rio Vista	6,396	0	0%	NA	0
Suisun	254,492	61,378	24%	\$2.20	(30,206)
Unincorporated	0	0	0%	NA	(31,514)
Vacaville	1,422,175	160,243	11%	\$1.78	41,335
Vallejo	3,544,237	876,073	25%	\$0.96	(17,547)
<b>Total Solano County</b>	<b>8,060,652</b>	<b>1,400,274</b>	<b>17%</b>	<b>\$1.27</b>	<b>(31,465)</b>
<b>Industrial</b>					
<b>Solano County</b>					
Benicia	8,302,870	701,760	8%	\$0.45	(151,605)
Dixon	3,183,248	172,696	5%	\$0.37	(74,120)
Fairfield	11,602,124	545,735	5%	\$0.39	746,985
Rio Vista	65,592	10,100	15%	NA	(9,600)
Suisun	473,875	25,500	5%	\$0.45	(23,310)
Unincorporated	18,852	0	0%	NA	0
Vacaville	7,157,962	540,866	8%	\$0.45	348,159
Vallejo	5,984,499	1,249,326	21%	\$0.34	113,779
<b>Total Solano County</b>	<b>36,789,022</b>	<b>3,245,983</b>	<b>9%</b>	<b>\$0.40</b>	<b>950,288</b>
<b>R&amp;D/Flex</b>					
<b>Solano County</b>					
Benicia	279,286	17,020	6%	NA	3,621
Dixon	91,483	25,540	28%	\$0.85	(24,740)
Fairfield	1,173,518	223,867	19%	\$0.45	(43,359)
Rio Vista	30,000	0	0%	NA	0
Suisun	95,010	9,098	10%	NA	(4,398)
Unincorporated	0	0	0%	NA	0
Vacaville	480,061	26,193	5%	\$1.50	18,342
Vallejo	369,952	30,439	8%	\$0.88	9,854
<b>Total Solano County</b>	<b>2,519,310</b>	<b>332,157</b>	<b>13%</b>	<b>\$0.84</b>	<b>(40,680)</b>

"mp"

Source: CoStar; EPS.

[1] Space which is currently vacant and is currently being marketed as available space. Vacant available space only refers to the occupancy of a space without regard to whether there is a lease obligation tied to that space.

[2] Represents the average total rental rate of listed space available during 2Q 2013. Rates are in 2013 dollars and reflect full services rates (includes the base rent plus taxes, insurance, maintenance, and utilities).



## APPENDIX C: Vacant Land Supply

Table C-1	Vacant Land Supply: Detailed Commercial, Office, and Industrial Listings (3 pages)
Map C-1	Solano County Vacant Land Supply (All Tiers)
Map C-2	Solano County Vacant Land Supply (Tier 1)
Map C-3	Solano County Vacant Land Supply (Tier 2)
Map C-4	Solano County Vacant Land Supply (Tier 3)

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**Table C-1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Vacant Land Supply: Detailed Commercial Office and Industrial Listings**

Juris.	Business/Industrial Park or Dev. Opportunity Site Name	Address	Zoning/Primary Land Use	Top Anchor Tenants	Land Value per Acre (2013\$)	Total Acreage	Total Vacant Acreage	Vacant Land Development Status			Key Constraints/Notes
								First-Tier: Finished Pads	Second-Tier: Backbone-Only	Third-Tier: "Zoned" Capacity	
<b>First Tier Opportunity Sites</b>											
Benicia	1,20,51 Oak Road	1,20,51 Oak Road	Industrial	NA	\$7,100,000	24.6	24.6	24.6	0.0	0.0	
Benicia	117 East D Street	117 East D Street	Commercial Office	NA	\$1,000,000	0.4	0.4	0.4	0.0	0.0	
Dixon	1500 N. Lincoln Street	1500 N. Lincoln Street	Commercial Office	NA	\$360,500	0.9	0.9	0.9	0.0	0.0	
Dixon	2755 N. 1st Street	2755 N. 1st Street	Commercial Office	NA	\$475,000	1.6	1.6	1.6	0.0	0.0	
Dixon	N 1st Street and Dorset Dr.	N 1st Street and Dorset Dr.	Commercial Office	NA	NA	1.0	1.0	1.0	0.0	0.0	
Dixon	N. 1st Street	N. 1st Street	Commercial Office	NA	\$369,715	1.0	1.0	1.0	0.0	0.0	
Fairfield	Fairfield Corporate Commons	Business Center Drive	Office/Research & Development	Solano EDC, Colliers	NA	72.0	48.0	48.0	0.0	0.0	Weak office market
Fairfield	Green Valley Corporate Park	Business Center Drive	Office/Research & Development	Partnership Health Plan	NA	132.0	74.5	74.5	0.0	0.0	Weak office market
Fairfield	Green Valley Office Park	Business Center Drive	Office/Research & Development	Solano County Office of Education	NA	72.0	15.0	15.0	0.0	0.0	Weak office market
Fairfield	Solano Business Park/Busch Corporate Center	Courage Drive	Light Industrial	Jelly Belly, Anheuser-Busch	NA	726.0	152.0	152.0	0.0	0.0	
Fairfield	Tolenas Industrial Park	Huntington Drive	Heavy Industrial	Clorox, frank-Lin Distillers	NA	273.0	46.0	46.0	0.0	0.0	Proximity to freeway
Suisun City	Lawler Commercial Center	Hwy 12 and Grizzly Island Road	Commercial Office	Existing Fast-Food Retailers	\$598,950	4.9	4.9	4.9	0.0	0.0	
Vacaville	Airport Business Area	I-80 and East Monte Vista Ave	Warehouse/Industrial	NA	NA	7.8	7.8	7.8	0.0	0.0	Warehousing/Industrial w/ freeway frontage
Vacaville	Alamo Drive & I-80	Alamo Drive and I-80	Commercial Office	NA	\$478,700	1.4	1.4	1.4	0.0	0.0	
Vacaville	Callen Street Lots	1343-1349 Callen St	Commercial Office	NA	\$827,750	0.4	0.4	0.4	0.0	0.0	
Vacaville	E Monte Vista Ave	0 E Monte Vista Ave	Commercial Office	NA	\$361,590	0.8	0.8	0.8	0.0	0.0	
Vacaville	E Monte Vista Ave	East Monte Vista Avenue and Piper Drive	Industrial	NA	\$130,680	2.5	2.5	2.5	0.0	0.0	
Vacaville	El Rancho Storage	Piper Drive and E. Monte Vista Ave	Industrial	NA	\$185,170	2.6	2.6	2.6	0.0	0.0	Approved public storage project
Vacaville	Freeway Development Site	East Monte Vista Avenue	Industrial	NA	\$292,930	5.0	5.0	5.0	0.0	0.0	Planned Business Park area with freeway frontage on Highway 505
Vacaville	Interchange Business Park	Crocker Drive near Vaca Valley Pkwy	Industrial	NA	NA	25.3	25.3	25.3	0.0	0.0	
Vacaville	NW Corner Orchard Ave/Monte Vista Ave	NW Corner Orchard Ave/Monte Vista Ave	Commercial Office	NA	NA	1.0	1.0	1.0	0.0	0.0	
Vacaville	Orchard/W Monte Vista	Orchard Avenue and W. Monte Vista	Commercial Office	NA	\$612,240	1.0	1.0	1.0	0.0	0.0	
Vacaville	Vaca Valley Business Park	I-80 and I-505	Commercial Office	NA	NA	21.3	21.3	21.3	0.0	0.0	
Vacaville	Vacaville Gateway Properties (Vaca Valley Business Park)	Horse Creek Drive	Commercial Office	NA	NA	119.0	119.0	119.0	0.0	0.0	
Vacaville	Vacaville Golden Hills Business Park	Vaca Valley Parkway & I-505	Commercial Office	NA	NA	99.0	99.0	99.0	0.0	0.0	Excellent location for manufacturers, distributors, R&D firms and office users; 99 total acres available for sale or build-to-suit; Fully improved industrial/office land; Centrally located in the heart of the Capitol Corridor Direct access to I-80 and I-505 Ten (10) finished sites ranging from 5.43 to 47.39 contiguous acres
Vacaville	Vacaville Golden Hills Business Park	Piper Dr., Cessna Dr., and Vaca Valley Pkwy	Industrial	NA	NA	7.2	7.2	7.2	0.0	0.0	
Vacaville	Vacaville Golden Hills Business Park	Allison Parkway and Vaca Valley Parkway	Industrial	NA	NA	13.5	13.5	13.5	0.0	0.0	
Vallejo	240 Curtola Parkway	240 Curtola Parkway	Commercial Office	NA	\$744,680	0.5	0.5	0.5	0.0	0.0	
Vallejo	501 Solano Ave	501 Solano Ave	Commercial Office	NA	\$511,510	3.9	3.9	3.9	0.0	0.0	Fully entitled for 783 self storage units in 5 buildings
Vallejo	Multiuse Development Parcel	Broadway and Garibaldi	Commercial Office	NA	\$451,800	0.8	0.8	0.8	0.0	0.0	
<b>Total First Tier Opportunity Sites</b>						<b>1,555.0</b>	<b>682.8</b>	<b>682.8</b>	<b>0.0</b>	<b>0.0</b>	

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**Table C-1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Vacant Land Supply: Detailed Commercial Office and Industrial Listings**

Juris.	Business/Industrial Park or Dev. Opportunity Site Name	Address	Zoning/Primary Land Use	Top Anchor Tenants	Land Value per Acre (2013\$)	Total Acreage	Total Vacant Acreage	Vacant Land Development Status			Key Constraints/Notes
								First-Tier: Finished Pads	Second-Tier: Backbone-Only	Third-Tier: "Zoned" Capacity	
<b>Second Tier Opportunity Sites</b>											
Dixon	1500 N 1st Street	1500 N 1st Street	Commercial Office	NA	\$295,000	1.0	1.0	0.0	1.0	0.0	
Dixon	1650 N. 1st Street	1650 N. 1st Street	Commercial Office	NA	\$249,000	1.2	1.2	0.0	1.2	0.0	
Dixon	Vaughn Road Business Park	600 Vaughn Road	Office/R&D	NA	NA	6.4	6.4	0.0	6.4	0.0	Services available immediately adjacent to site
Fairfield	1439 W Texas Street	1439 W Texas Street	Commercial Office	NA	\$899,000	1.8	1.8	0.0	1.8	0.0	
Fairfield	2350 Auto Mall Parkway	2350 Auto Mall Parkway	Commercial Office	NA	\$5,328,000	4.8	4.8	0.0	4.8	0.0	
Fairfield	4335 Central Place	4335 Central Place	Commercial Office	NA	\$696,500	2.5	2.5	0.0	2.5	0.0	
Fairfield	4408 Sunset Avenue	4408 Sunset Avenue	Commercial Office	NA	\$150,000	1.2	1.2	0.0	1.2	0.0	
Fairfield	540 Chadbourne Road	540 Chadbourne Road	Commercial Office	NA	\$1,128,204	3.7	3.7	0.0	3.7	0.0	
Fairfield	Busch Campus Park	510 Chadbourne Road	Commercial Office	NA	NA	3.1	3.1	0.0	3.1	0.0	
Fairfield	Busch Commerce Center	Courage Drive near Chadbourne Road	Commercial Office	NA	NA	5.9	5.9	0.0	5.9	0.0	
Fairfield	Chadbourne Road and Cordelia Road	Chadbourne Road and Cordelia Road	Industrial	NA	NA	52.0	52.0	0.0	52.0	0.0	
Fairfield	Peabody Road and Whitney Drive	Peabody Road and Whitney Drive	Commercial Office	NA	\$650,000	1.5	1.5	0.0	1.5	0.0	
Fairfield	Solano Business Park	S Watney Way	Commercial Office	NA	\$1,018,215	2.7	2.7	0.0	2.7	0.0	
Rio Vista	City of Rio Vista Business Park	Poppy House Road, Rio Vista, 94571	Light Industrial	California Vegetable Specialties	NA	25.0	25.0	0.0	25.0	0.0	Infrastructure requirements for curbs, gutters, electrical, plumbing, sewer, storm drains, and water, etc.
Suisun City	Union Creek	1800-2100 Peterson Road	Commercial Office	NA	\$130,680	13.3	13.3	0.0	13.3	0.0	
Vacaville	Cernon Street	Cernon Street	Commercial Office	NA	\$251,750	0.5	0.5	0.0	0.5	0.0	
Vacaville	Interchange Business Park	Crocker Drive near Vaca Valley Pkwy	Commercial Office	NA	NA	5.0	5.0	0.0	5.0	0.0	Within established business park
Vacaville	Interchange Business Park	Midway Road and Eubanks Drive	Industrial	NA	NA	158.8	158.8	0.0	158.8	0.0	Water and possible sewer collection constraints
Vacaville	Vaca Golden Hills Business Park	Vaca Valley Pkwy & East Monte Vista Ave	Industrial	NA	NA	4.1	4.1	0.0	4.1	0.0	
Vacaville	Vacaville 140	Kilkenny Road	Commercial Office	NA	\$42,860	140.0	140.0	0.0	140.0	0.0	
Vacaville	Vacaville Golden Hills Business Park	Allison Parkway and Vaca Valley Parkway	Industrial	NA	NA	13.7	13.7	0.0	13.7	0.0	Airport compatibility constraints. Limited development potential
Vallejo	110 Admiral Callaghan Lane	110 Admiral Callaghan Lane	Commercial Office	NA	\$616,670	3.0	3.0	0.0	3.0	0.0	
Vallejo	4008 Sonoma Blvd	4008 Sonoma Blvd	Commercial Office	NA	NA	7.6	7.6	0.0	7.6	0.0	
Vallejo	General Mills Site	800 Derr Street	Industrial	NA	NA	39.6	39.6	0.0	39.6	0.0	
Vallejo	North Mare Island	Mare Island	Commercial Office	NA	NA	52.3	52.3	0.0	52.3	0.0	
Vallejo	North Mare Island	Mare Island	Industrial	NA	NA	104.7	104.7	0.0	104.7	0.0	
Vallejo	Lennar Mare Island	Mare Island	Commercial Office	NA	NA	21.0	21.0	0.0	21.0	0.0	
Vallejo	Lennar Mare Island	Mare Island	Industrial	NA	NA	13.0	13.0	0.0	13.0	0.0	
<b>Total Second Tier Opportunity Sites</b>						<b>530.3</b>	<b>689.1</b>	<b>0.0</b>	<b>689.1</b>	<b>0.0</b>	

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**Table C-1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Vacant Land Supply: Detailed Commercial Office and Industrial Listings**

Juris.	Business/Industrial Park or Dev. Opportunity Site Name	Address	Zoning/Primary Land Use	Top Anchor Tenants	Land Value per Acre (2013\$)	Total Acreage	Total Vacant Acreage	Vacant Land Development Status			Key Constraints/Notes
								First-Tier: Finished Pads	Second-Tier: Backbone-Only	Third-Tier: "Zoned" Capacity	
<b>Third Tier Opportunity Sites</b>											
Benicia	Highway 680 and Goodyear Road	Highway 680 and Goodyear Road	Commercial Office	NA	\$1,500,000	4.5	4.5	0.0	0.0	4.5	
Benicia	Seeno Property	East 2nd Street: APN: 0080030160	Light Industrial	NA	NA	351.0	351.0	0.0	0.0	351.0	Property Owner now desires to build residential units
Benicia	Vacant Lot	273 Industrial Way	Heavy Industrial	Manufacturing / Distribution	NA	3.0	3.0	0.0	0.0	3.0	None
Dixon	1470 Ary Lane	1470 Ary Lane	Commercial Office	NA	\$201,256	0.6	0.6	0.0	0.0	0.6	
Dixon	199 Dorset Drive	199 Dorset Drive	Commercial Office	NA	\$359,000	0.8	0.8	0.0	0.0	0.8	
Dixon	200 Dorset Court	200 Dorset Court	Commercial Office	NA	\$640,000	1.6	1.6	0.0	0.0	1.6	
Dixon	6738 Midway Road	6738 Midway Road	Industrial	NA	\$4,575,000	35.0	35.0	0.0	0.0	35.0	
Dixon	8621 and 8625 Robben Road	8621 and 8625 Robben Road	Industrial	NA	\$2,529,311	16.6	16.6	0.0	0.0	16.6	
Dixon	Future Industrial SOI	Pedrick Road south of Vaughn Road	Warehouse/Distribution	NA	NA	77.0	77.0	0.0	0.0	77.0	General Planned Industrial. Located immediately adjacent to Vaughn Road BP within SOI (annexation required prior to development)
Dixon	NE Quadrant Specific Plan	Northeast Corner of Dixon, 95620	Light Industrial	NA	NA	325.0	325.0	0.0	0.0	325.0	Sewer exists; water is expected by end of 2015; no plans for remaining infrastructure
Dixon	NEQ Vaughn Rd and N 1st Street	NEQ Vaughn Rd and N 1st Street	Commercial Office	NA	NA	9.9	9.9	0.0	0.0	9.9	
Dixon	Stratford Ave/N. Lincoln St	Stratford Ave/N. Lincoln St	Commercial Office	NA	\$850,000	1.0	1.0	0.0	0.0	1.0	
Dixon	Vaughn Road Business Park	East H Street next to UPRR	Warehouse/Distribution	NA	NA	3.8	3.8	0.0	0.0	3.8	Located at southern edge of Vaughn Road BP. Services available immediately adjacent to site
Fairfield	200 Pennsylvania Avenue	200 Pennsylvania Avenue	Industrial	NA	NA	4.7	4.7	0.0	0.0	4.7	
Fairfield	2450 Cordelia Road	2450 Cordelia Road	Commercial Office	NA	\$650,000	2.3	2.3	0.0	0.0	2.3	
Fairfield	2700 Whitney Drive	2700 Whitney Drive	Commercial Office	NA	\$639,812	2.9	2.9	0.0	0.0	2.9	
Fairfield	3000 Auto Mall Parkway	3000 Auto Mall Parkway	Commercial Office	NA	NA	4.0	4.0	0.0	0.0	4.0	
Fairfield	Cordelia Road	Cordelia Road	Industrial	NA	NA	3.7	3.7	0.0	0.0	3.7	
Fairfield	Crocker Circle	Crocker Circle	Commercial Office	NA	NA	3.7	3.7	0.0	0.0	3.7	
Fairfield	Fairfield Corporate Commons	I-80 near Suisun Valley Road	Commercial Office	NA	NA	36.5	36.5	0.0	0.0	36.5	
Fairfield	Grobic and Central Way	Grobic and Central Way	Commercial Office	NA	NA	1.1	1.1	0.0	0.0	1.1	
Fairfield	Maxwell Way	Maxwell Way	Industrial	NA	\$1,068,000	3.3	3.3	0.0	0.0	3.3	
Fairfield	Peabody Road and Huntington Drive	Peabody Road and Huntington Drive	Commercial Office	NA	NA	3.6	3.6	0.0	0.0	3.6	
Fairfield	Pittman and Link Roads	Pittman and Link Roads	Commercial Office	NA	\$275,000	1.7	1.7	0.0	0.0	1.7	
Fairfield	Train Station	Peabody Road	Heavy Industrial	NA	NA	200.0	200.0	0.0	0.0	200.0	Infrastructure requirements
Fairfield	Train Station	Peabody Road	Light Industrial	NA	NA	100.0	100.0	0.0	0.0	100.0	Infrastructure requirements
Rio Vista	City of Rio Vista Business Park	Poppy House Road, Rio Vista, 94571	Light Industrial	California Vegetable Specialties	NA	49.5	49.5	0.0	0.0	49.5	Infrastructure requirements for curbs, gutters, electrical, plumbing, sewer, storm drains, and water, etc.
Suisun City	30 Acre Site	NWC Hwy 12/Marina Blvd	Commercial Office	Vacant Land	NA	30.0	30.0	0.0	0.0	30.0	Required infrastructure
Suisun City	Gentry Property	SWC Hwy 12/Pennsylvania Ave	Commercial Office	Vacant Land	NA	497.0	497.0	0.0	0.0	497.0	Biological issues, traffic/water/sewer infrastructure
Uninc. County	1445 Market Lane	1445 Market Lane	Commercial Office	NA	NA	5.6	5.6	0.0	0.0	5.6	
Uninc. County	Collinsville	Collinsville Road	Industrial	NA	NA	1,350.0	1,350.0	0.0	0.0	1,350.0	Infrastructure requirements to accommodate industrial uses
Uninc. County	Creed Road	Creed Road	Industrial (General Manufacturing)	NA	\$14,650	273.0	273.0	0.0	0.0	273.0	Fee ownership offered, mineral rights not transferrable
Uninc. County	Dixon Area	NE of City of Dixon along I-80	Industrial	NA	NA	750.0	500.0	0.0	0.0	500.0	Planning, environmental, and infrastructure requirements
Uninc. County	Lambie Road Area	Lambie Road	Industrial	NA	NA	1,525.0	1,525.0	0.0	0.0	1,525.0	Planning, environmental, and infrastructure requirements
Uninc. County	Market Lane and Ary Lane	Market Lane and Ary Lane	Commercial Office	NA	\$795,000	1.4	1.4	0.0	0.0	1.4	
Uninc. County	North Vacaville	Midway Road, I-80, and I-505	Industrial	NA	NA	660.0	660.0	0.0	0.0	660.0	
Vacaville	360 Butcher Road	360 Butcher Road	Commercial Office	NA	\$245,000	1.1	1.1	0.0	0.0	1.1	
Vacaville	Interchange Business Park	Cotting Lane and Crocker Drive	Industrial	NA	NA	4.9	4.9	0.0	0.0	4.9	
Vacaville	Mason Street LLC	Mason Street	Commercial Office	NA	\$841,350	2.1	2.1	0.0	0.0	2.1	
Vacaville	Vacaville Golden Hills Business Park	I-505 and Vaca Valley Parkway	Industrial	NA	NA	22.2	22.2	0.0	0.0	22.2	
Vallejo	Sonoma Blvd and Magazine Street	Sonoma Blvd and Magazine Street	Commercial Office	NA	\$585,860	5.0	5.0	0.0	0.0	5.0	
<b>Total Third Tier Opportunity Sites</b>						<b>6,351.8</b>	<b>6,124.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6,124.0</b>	
<b>Total Opportunity Sites</b>						<b>8,437.1</b>	<b>7,495.9</b>	<b>682.8</b>	<b>689.1</b>	<b>6,124.0</b>	
Total Opportunity Sites in Cities (Excluding Unincorporated County Sites)						3,872.1	3,180.8	682.8	689.1	1,808.9	
Total All Opportunity Sites in Unincorporated County						4,565.0	4,315.0	0.0	0.0	4,315.0	

Source: LoopNet as of December 2013; Solano county jurisdictions; EPS.

"supply\_detail"

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**Legend**

**Vacant Land Supply**

**Tier 1**

- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660
- 660.01 - 1,525

**Vacant Land Supply**

**Tier 2**

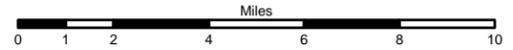
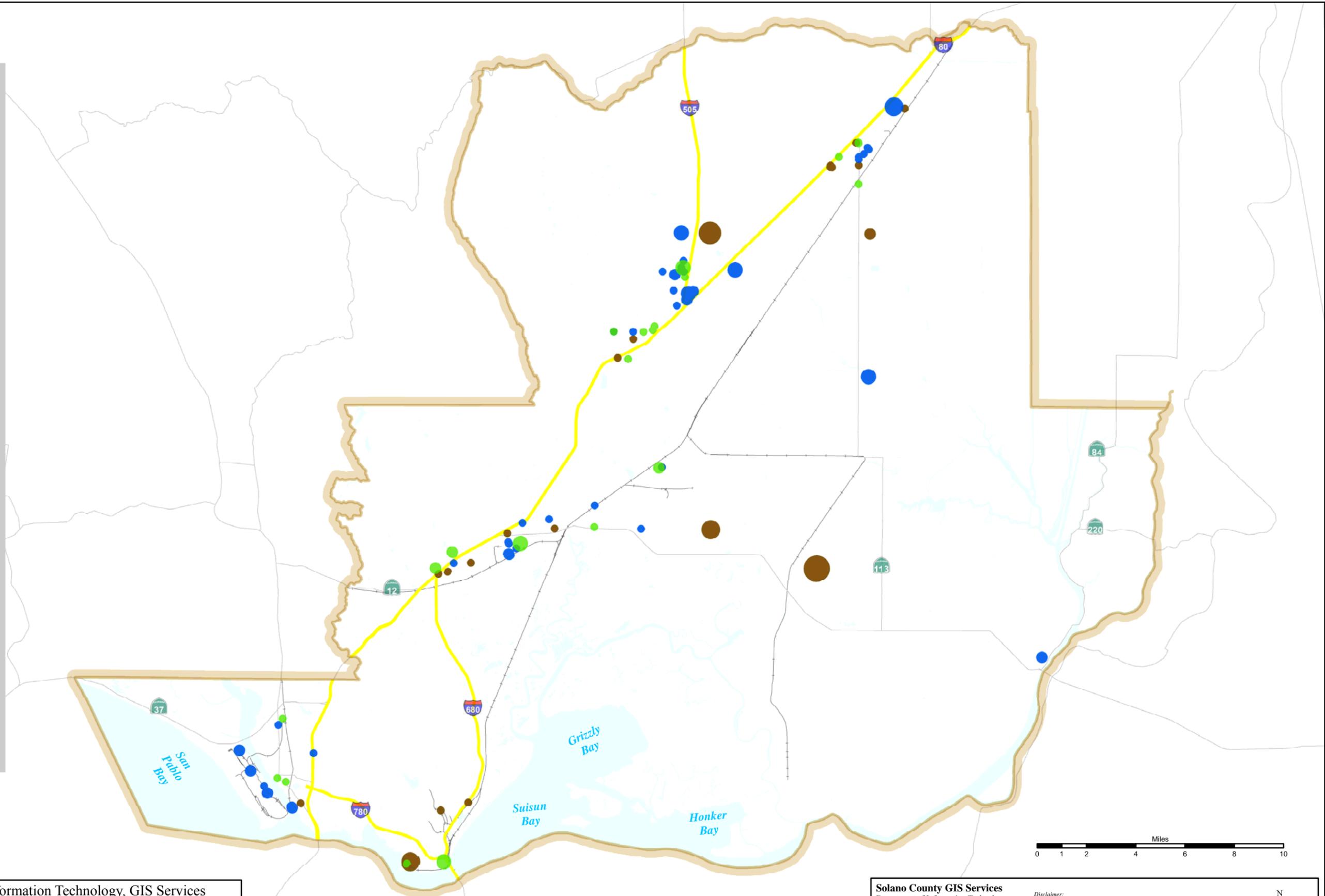
- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660
- 660.01 - 1,525

**Vacant Land Supply**

**Tier 3**

- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660
- 660.01 - 1,525

- Interstates
- Railroads
- Highways
- County Boundaries
- County Boundary Buffer



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# Solano County Vacant Land Supply

**Solano County GIS Services**  
 Department of Information Technology  
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 Fairfield, CA 94533  
 Phone: 707-784-6340  
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 PRJ\_1033, 02/27/2014

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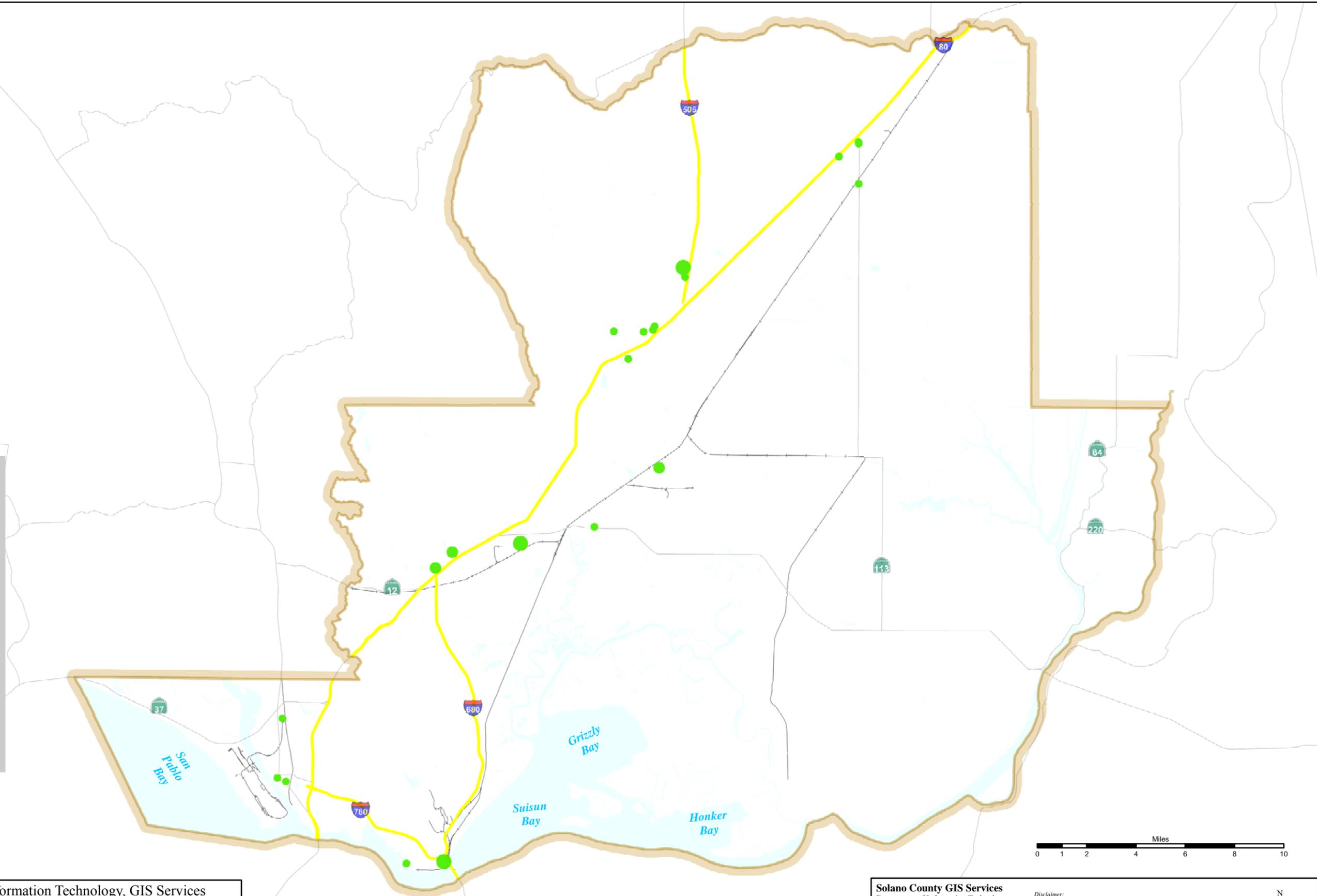
**Legend**

**Vacant Land Supply**

**Tier 1**

- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660
- 660.01 - 1,525

- Interstates
- Railroads
- Highways
- County Boundaries
- County Boundary Buffer



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# Solano County Vacant Land Supply

Tier 1

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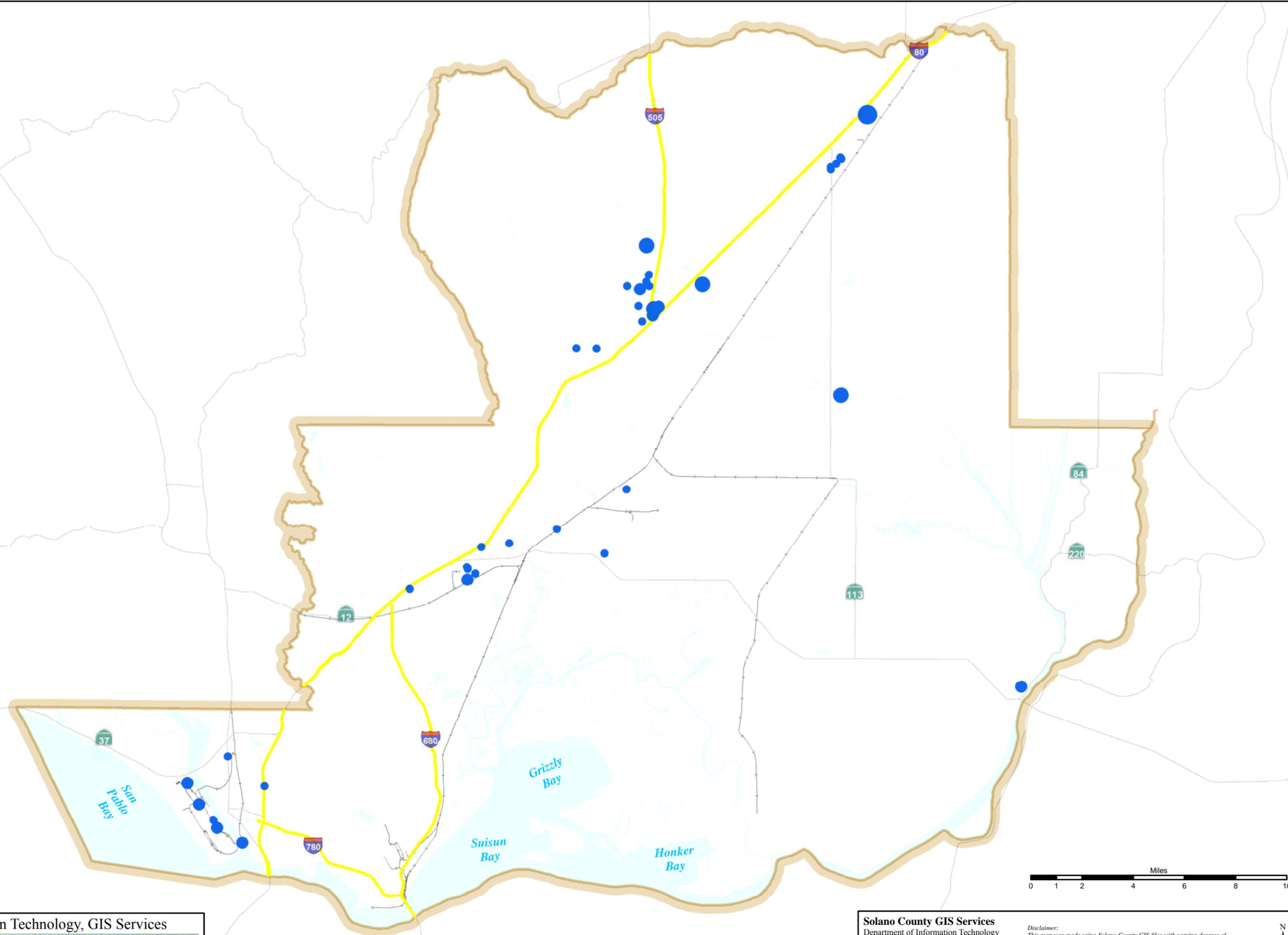
**Legend**

**Vacant Land Supply**

**Tier 2**

- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660.00
- 660.01 - 1,525

- Interstates
- County Boundaries
- County Boundary Buffer
- Interstates
- Highways
- Railroads



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# Solano County Vacant Land Supply

Tier 2

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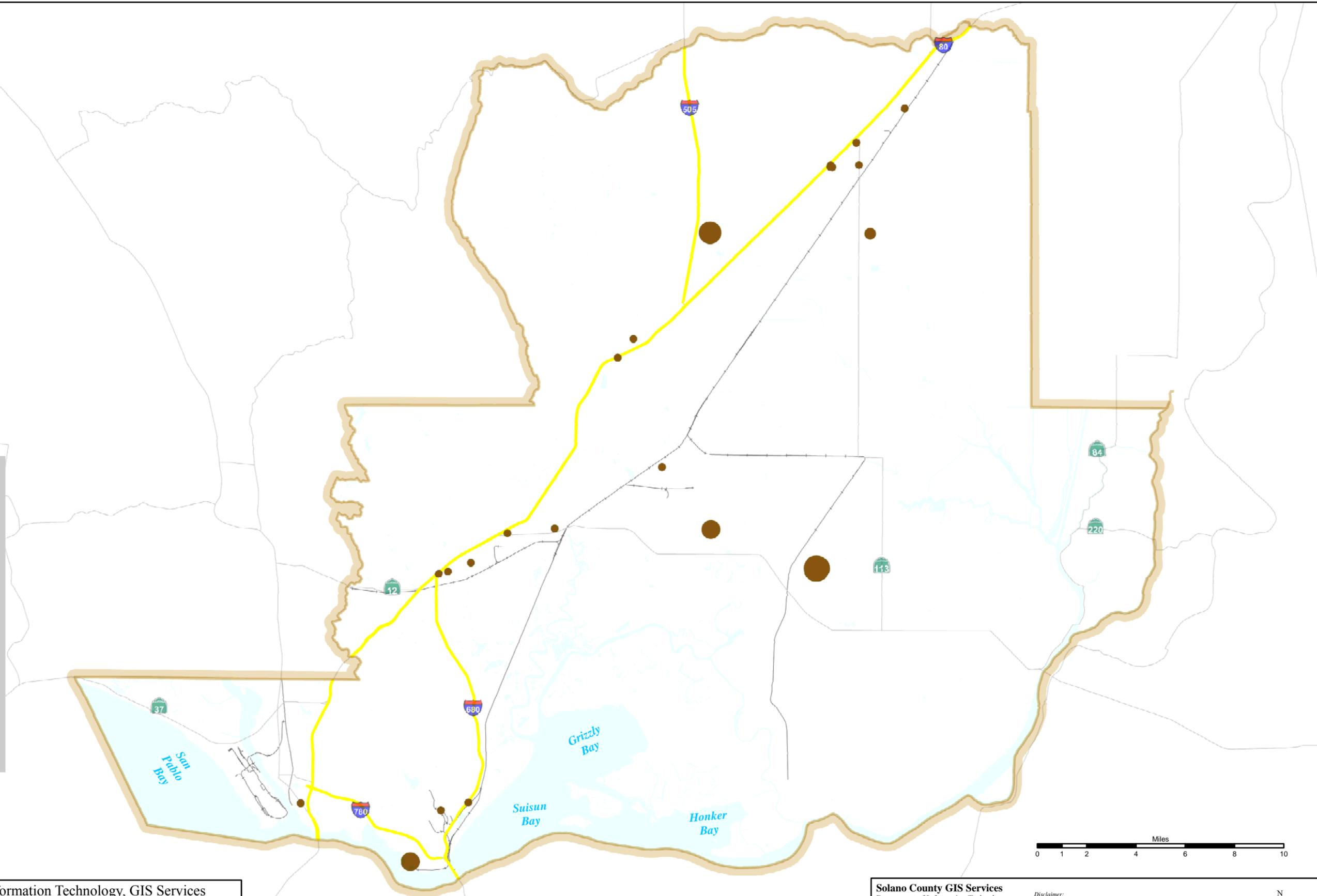
**Legend**

**Vacant Land Supply**

**Tier 3**

- 0.37 - 16.59
- 16.60 - 74.50
- 74.51 - 200
- 200.01 - 351
- 351.01 - 660
- 660.01 - 1,525

- Interstates
- Railroads
- Highways
- County Boundaries
- County Boundary Buffer



Department of Information Technology, GIS Services

**Solano County**

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# Solano County Vacant Land Supply

Tier 3

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## APPENDIX D: Real Estate Land Demand Analysis

Table D-1	Land Demand Survey
Table D-2	Estimated Space Demand: Office
Table D-3	Estimated Space Demand: Industrial
Table D-4	Employment Categories
Table D-5	Projected Employment Growth by Category
Table D-6	Employment by Industry and Building Space Factors
Table D-7	Applied Employment by Industry and Building Space Factors

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**Table D-1  
Moving SOLANO Forward  
Economic Diversification Strategy  
Land Demand Summary (2013-2033)**

<b>Scenario 2: ABAG Scenario</b>
--------------------------------------

Item	Office	Industrial	Total All Land Uses
Source	Table D-2	Table D-3	
<b>New Jobs Using Space</b>	6,220	5,130	<b>11,350</b>
<b>Total Nonresidential Space Requirements (2013-2033)</b>			
Acres	179.0	1,018.0	<b>1,197.0</b>
Square Feet	1,560,000	8,979,000	<b>10,539,000</b>
<b>Average Annual Absorption (20 year period)</b>			
Acres	9.0	50.9	<b>59.9</b>
Square Feet	78,000	448,950	<b>526,950</b>

*"space"*

Source: ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013; ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; US Census; Natelson Company; EPS.

**Table D-2  
Moving SOLANO Forward  
Economic Diversification Strategy  
Estimated Space Demand (2013-2033): Office**

Industry	Estimated Total Employment Growth (2013-2033)	Percentage of Employees Using Office Space [1]	Number of Employees Using Office Space	Estimated Gross Space Demand (2013-2033)	
				Sq. ft.	Acres
<i>Assumptions</i>	<i>Table D-5</i>	<i>Table D-7</i>		<i>250 sq. ft./employee</i>	<i>0.30 FAR</i>
Mining	(186)	33.9%	(63)	(15,764)	(1.2)
Construction	3,796	9.2%	349	87,303	10.0
Manufacturing	1,215	18.6%	226	56,505	6.5
TPU	138	16.9%	23	5,834	0.7
Retail Trade	905	7.4%	67	16,749	1.9
FIRE	1,133	31.2%	353	88,348	10.1
Services	20,280	17.1%	3,468	866,955	99.5
Government	4,593	39.2%	1,801	450,133	51.7
<b>Total Adjusted Market Area (Rounded)</b>	<b>31,900</b>		<b>6,220</b>	<b>1,560,000</b>	<b>179.0</b>

"office\_dem"

Source: ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013; ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; US Census; Natelson Company; EPS.

[1] Includes low rise, high rise, and government office categories.

**Table D-3  
Moving SOLANO Forward  
Economic Diversification Strategy  
Estimated Space Demand (2013-2033): Industrial**

Industry	Estimated Total Employment Growth (2013-2033)	Percentage of Employees Using Industrial Space	Number of Employees Using Industrial Space	Estimated Gross Space Demand (2013-2033)	
				Sq. ft.	Acres
<i>Assumptions [1]</i>	<i>Table D-5</i>	<i>Table D-7</i>		<i>1,752 sq. ft./employee</i>	<i>0.20 FAR</i>
Mining	(186)	20.7%	(39)	(67,440)	(7.6)
Construction	3,796	30.9%	1,173	2,054,438	232.9
Manufacturing	1,215	104.2%	1,266	2,217,842	251.4
TPU	138	30.0%	41	72,555	8.2
Retail Trade	905	8.5%	77	134,790	15.3
FIRE	1,133	6.1%	69	120,228	13.6
Services	20,280	11.0%	2,231	3,907,369	442.9
Government	4,593	6.7%	308	539,040	61.1
<b>Total Market Area (Rounded)</b>	<b>31,900</b>		<b>5,130</b>	<b>8,979,000</b>	<b>1,018.0</b>

"ind\_dem"

Source: ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013; ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; US Census; Natelson Company; EPS.

[1] Based on a weighted average of assumptions used for R&D/Flex, Light Industrial, Warehouse/Distribution, and Other Industrial. See Table C-4 for more information.

**Table D-4  
Moving SOLANO Forward  
Economic Diversification Strategy  
Employment Categories**

<b>ABAG Category</b>	<b>NAICS Code</b>	<b>NAICS Category</b>	<b>SIC Category</b>
<b>Agriculture and Natural Resources</b>	11	Agriculture, Forestry, Fishing and Hunting	Mining
	21	Mining and Logging	Mining
<b>Manufacturing, Wholesale, and Transportation</b>	22; 48-49	Utilities, Transportation, and Warehousing	TPU
	31-33	Manufacturing	Manufacturing
	42	Wholesale Trade	Wholesale Trade
<b>Retail</b>	44-45	Retail Trade	Retail Trade
<b>Finance and Professional Services</b>	52-53	Finance and Insurance and Real Estate	FIRE
	54-56	Professional, Scientific, and Technical Services	Services [1]
<b>Health, Education, and Recreational Services</b>	61	Education (Private)	Services [1]
	62	Health Care and Social Assistance	Services [1]
	71-72	Leisure & Hospitality	Services [1]
	81	Other Services (except Public Administration)	Services [1]
<b>Other</b>	23	Construction	Construction
	51	Information	Services [1]
	92	Public Administration	Government

*"category"*

Source: ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013; ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; US Census; EPS.

**Table D-5  
Moving SOLANO Forward  
Economic Diversification Strategy  
Projected Employment Growth by Category**

SIC Categories	ABAG SCS Jobs-Housing Connection Scenario (March 9, 2013) Categories	ABAG Employment Growth [1]	
		Percent [2]	Amount [2]
Mining	Agriculture, Forestry, Fishing and Hunting, Mining, and Logging	-0.58%	(186)
Construction	Construction	11.91%	3,796
Manufacturing / Whole Sale Trade	Manufacturing	3.81%	1,215
TPU	Utilities, Transportation, and Warehousing	0.43%	138
Retail Trade	Retail Trade	2.84%	905
FIRE	Finance and Insurance and Real Estate	3.55%	1,133
<b>Services</b>	Professional, Scientific, and Technical Services	15.00%	4,780
	Health Care and Social Assistance & Education	34.45%	10,980
	Leisure & Hospitality and Other Services (except Public Administration)	14.24%	4,540
	Information	-0.06%	(20)
<b>Subtotal Services</b>		<b>63.62%</b>	<b>20,280</b>
Government	Public Administration	14.41%	4,593
<b>Total</b>		<b>100.00%</b>	<b>31,874</b>

"emp"

Source: ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013; ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013; EPS.

[1] The employment amount for mining (agriculture), retail, and the total employment are from the ABAG Jobs-Housing Connection Scenario Preferred Land Use Scenario for Plan Bay Area, adopted May 17, 2013. The remaining categories were calculated using the percentage for each category of the total employment from the ABAG SCS Jobs-Housing Connection Scenario, March 9, 2013. This method was necessary because the ABAG Preferred Land Use Scenario projections condensed several categories.

**Table D-6  
Moving SOLANO Forward  
Economic Diversification Strategy  
Employment by Industry and Building Space Factors**

Land Use Category	Mining	Construction	Manufacturing	Trans & Pub. Utilities	Wholesale Trade	Retail Trade	FIRE	Services	Government
<b>Office Uses</b>									
Low-Rise Office	10.1%	6.3%	4.8%	7.7%	8.8%	5.5%	19.4%	11.2%	11.0%
High-Rise Office	23.5%	2.2%	1.7%	3.1%	2.4%	1.6%	11.1%	4.9%	2.8%
Government Offices	0.3%	0.7%	0.7%	6.1%	0.2%	0.3%	0.7%	1.0%	25.4%
<b>Subtotal Office Uses</b>	<b>33.9%</b>	<b>9.2%</b>	<b>7.2%</b>	<b>16.9%</b>	<b>11.4%</b>	<b>7.4%</b>	<b>31.2%</b>	<b>17.1%</b>	<b>39.2%</b>
<b>Industrial Uses</b>									
R&D/Flex Space	0.7%	1.4%	2.1%	0.6%	1.9%	0.5%	0.6%	0.7%	0.3%
Light Manufacturing	13.3%	26.7%	50.3%	22.2%	36.9%	6.8%	4.9%	9.4%	5.6%
Misc. Industrial	5.8%	1.8%	1.4%	2.4%	1.5%	0.4%	0.4%	0.4%	0.5%
Heavy Manufacturing	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Warehouse	0.9%	1.0%	4.8%	4.8%	5.0%	0.8%	0.2%	0.5%	0.3%
<b>Subtotal Industrial Uses</b>	<b>20.7%</b>	<b>30.9%</b>	<b>58.9%</b>	<b>30.0%</b>	<b>45.3%</b>	<b>8.5%</b>	<b>6.1%</b>	<b>11.0%</b>	<b>6.7%</b>
<b>Retail Uses</b>									
Regional Retail	0.1%	0.1%	0.1%	0.2%	0.2%	4.0%	1.3%	0.5%	0.0%
Other Retail/Services	10.6%	13.8%	8.2%	14.4%	13.8%	49.2%	26.5%	22.3%	10.7%
Misc. Commercial	0.0%	0.7%	0.3%	1.6%	1.3%	0.6%	0.9%	1.2%	3.1%
<b>Subtotal Retail Uses</b>	<b>10.7%</b>	<b>14.6%</b>	<b>8.6%</b>	<b>16.2%</b>	<b>15.3%</b>	<b>53.8%</b>	<b>28.7%</b>	<b>24.0%</b>	<b>13.8%</b>
Hotel/Motel	1.0%	0.3%	0.4%	2.3%	0.7%	1.2%	2.3%	1.5%	0.4%
<b>Subtotal Retail and Hotel/Motel</b>	<b>11.7%</b>	<b>14.9%</b>	<b>9.0%</b>	<b>18.5%</b>	<b>16.0%</b>	<b>55.0%</b>	<b>31.0%</b>	<b>25.5%</b>	<b>14.2%</b>
<b>Schools</b>									
Primary/Secondary School	0.6%	0.6%	0.4%	0.3%	0.4%	0.6%	0.4%	4.3%	0.5%
Colleges & Universities	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.2%	1.3%	0.7%
<b>Subtotal Schools</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>0.5%</b>	<b>0.9%</b>	<b>0.6%</b>	<b>5.6%</b>	<b>1.2%</b>
<b>Institutions</b>									
Utilities	0.3%	0.5%	0.5%	0.8%	0.5%	0.3%	1.1%	0.3%	1.0%
Hospitals	0.0%	0.1%	0.1%	0.4%	0.1%	0.3%	0.5%	3.7%	0.3%
Other Institutional	0.5%	0.7%	0.4%	0.8%	0.5%	0.9%	1.4%	2.4%	7.0%
<b>Subtotal Institutions</b>	<b>0.8%</b>	<b>1.3%</b>	<b>1.0%</b>	<b>2.0%</b>	<b>1.1%</b>	<b>1.5%</b>	<b>3.0%</b>	<b>6.4%</b>	<b>8.3%</b>
<b>Other</b>									
Transportation	0.7%	1.0%	1.6%	8.9%	1.3%	0.7%	0.3%	0.7%	0.8%
Agriculture	2.7%	1.2%	2.0%	0.8%	1.7%	0.7%	0.6%	1.0%	0.6%
Open Space	5.4%	5.9%	5.1%	5.3%	5.5%	5.2%	5.2%	6.1%	4.9%
All Other	9.1%	3.1%	4.0%	4.3%	3.4%	3.8%	4.4%	3.9%	11.4%
Residential	14.2%	31.6%	10.7%	12.8%	13.9%	16.0%	17.7%	22.8%	12.9%
<b>Subtotal Other</b>	<b>32.1%</b>	<b>42.8%</b>	<b>23.4%</b>	<b>32.1%</b>	<b>25.8%</b>	<b>26.4%</b>	<b>28.2%</b>	<b>34.5%</b>	<b>30.6%</b>
<b>Total (Rounded)</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

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Source: SCAG Employment Density Study 2001 by the Natelson Company.

**Table D-7**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Applied Employment by Industry and Building Space Factors**

Land Use Category	Mining	Construction	Manufacturing/ Wholesale Trade	Trans & Pub. Utilities	Retail Trade	FIRE	Services	Government	Total (Rounded)
<b>APPLIED CATEGORIES</b>									
<b>Office Uses</b>									
Low-Rise Office	10.1%	6.3%	13.6%	7.7%	5.5%	19.4%	11.2%	11.0%	
High-Rise Office	23.5%	2.2%	4.1%	3.1%	1.6%	11.1%	4.9%	2.8%	
Government Offices	0.3%	0.7%	0.9%	6.1%	0.3%	0.7%	1.0%	25.4%	
<b>Subtotal Office Uses</b>	<b>33.9%</b>	<b>9.2%</b>	<b>18.6%</b>	<b>16.9%</b>	<b>7.4%</b>	<b>31.2%</b>	<b>17.1%</b>	<b>39.2%</b>	
<b>Industrial Uses</b>									
R&D/Flex Space	0.9%	1.0%	9.8%	4.8%	0.8%	0.2%	0.5%	0.3%	
Light Manufacturing	0.7%	1.4%	4.0%	0.6%	0.5%	0.6%	0.7%	0.3%	
Warehouse	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Misc. Industrial	13.3%	26.7%	87.2%	22.2%	6.8%	4.9%	9.4%	5.6%	
Heavy Manufacturing	5.8%	1.8%	2.9%	2.4%	0.4%	0.4%	0.4%	0.5%	
<b>Subtotal Industrial</b>	<b>20.7%</b>	<b>30.9%</b>	<b>104.2%</b>	<b>30.0%</b>	<b>8.5%</b>	<b>6.1%</b>	<b>11.0%</b>	<b>6.7%</b>	
<b>Total Office and Industrial</b>	<b>54.6%</b>	<b>40.1%</b>	<b>122.8%</b>	<b>46.9%</b>	<b>15.9%</b>	<b>37.3%</b>	<b>28.1%</b>	<b>45.9%</b>	
Total Estimated Employment Growth	(186)	3,796	1,215	138	905	1,133	20,280	4,593	31,874
<b>New Jobs Using Space</b>	<b>(102)</b>	<b>1,522</b>	<b>1,492</b>	<b>65</b>	<b>144</b>	<b>422</b>	<b>5,699</b>	<b>2,108</b>	<b>11,350</b>

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Source: EPS, and SCAG Employment Density Study 2001 by the Natelson Company.

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## APPENDIX E: Interviews

Table E-1 Interviews Conducted for Real Estate Assessment

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**Table E-1  
 Moving SOLANO Forward  
 Economic Diversification Strategy  
 Interviews Conducted for Real Estate Assessment**

Name	Company
Dowling, Glen	Cushman & Wakefield
Fike, Ron	Kappel & Kappel
Garrett, Philip	Colliers International
Gray, Jim	Cassidy Turley
Oakes, Greg	Independent Broker
Quick, Jon	Colliers International
Rehn, Eric	Kennedy Wilson Properties Group
Shamieh, Ray	Ray Shamieh Commercial
Wright, Stuart	CBRE

"int"

Source: EPS.

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MEMORANDUM II:

Regional Economic Development  
Ecosystem Analysis



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## **MEMORANDUM**

To: County of Solano

From: Moving SOLANO Forward Project Team

Subject: Regional Economic Development Ecosystem Analysis;  
EPS #132024

Date: March 3, 2014

This memorandum provides an evaluation of Solano County's (county) regional economic development (ED) ecosystem and is the second key input for the Moving SOLANO Forward (MSF) project (Project), an ambitious effort to develop a countywide strategic approach to further diversify the economic base of the county.<sup>1</sup> This memorandum, as well as the initial Demographic and Economic Profile and Real Estate Analysis memorandum (February 2014) and forthcoming memorandum on Viable Industry Sectors and Clusters and Economic Assets and Gaps (April 2014), will serve as contributions to the Economic Diversification Study Report (Study Report), which will be prepared and presented to stakeholders in June 2014.

The evaluation of the regional ED ecosystem focuses on existing regional ED programs and services relative to a typical suite of "best practice" regional ED programs and services. At its conclusion, this memorandum addresses considerations for maximizing regional ED programs and services in the county. The Study Report will address these considerations and offer specific strategies and implementation actions to bolster the ED ecosystem of the county and help enhance economic diversity.

### **Regional Economic Development Overview**

Effective delivery of regional economic development programs and services will be a key driver for enhancing economic vitality and realizing a more diversified economy in the county. Regional economic development programs in the United States generally fall within six main categories, as described below.

- **Business Attraction and Marketing.** Business attraction and marketing programs seek to facilitate new economic stimulation and diversification of the regional economy by proactively enhancing visibility of the region and drawing in new business investment.

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<sup>1</sup> In this memorandum, Solano County and the abbreviation "county" refer to the geographic boundaries of the county and all cities contained therein. The political and administrative entity will be referred to as "County of Solano." Any reference to other counties will include the specific county name.

- **Business Retention and Expansion.** Recognizing that research has established that between 65 percent and 80 percent of new jobs are created by existing businesses, business retention and expansion programs focus on providing support to keep and grow companies already located in the region.
- **Entrepreneurial and Small Business Development.** Research has also shown that businesses with less than 20 employees are the primary source of job creation and innovation, leading to programs focused on supporting new business ventures and addressing unique small business needs and issues.
- **Business Finance.** Business finance programs provide financing outside the standard private sector model and offer additional financial means to allow businesses to start, expand, and remain competitive.
- **Technology Development.** Technology development programs focus on supporting business creation and expansion of existing businesses through development and deployment of new technology-driven products and services.
- **Workforce Development.** A quality workforce is now one of the most critical drivers of regional economic competitiveness and workforce development programs concentrate on creating a workforce aligned with the existing and projected occupational and skill demands of businesses in the regional economy.

**Table 1** outlines the standard programs and services under each of the six categories along with the typically-desired outcomes based on national best practices.

**Table 1. Catalog of Standard Regional Economic Development Programs**

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

Source: Center for Strategic Economic Research, January 2014

## Regional ED Entities in Solano County

The primary regional entities delivering economic development programs and services in Solano County include:

- The Solano Economic Development Corporation (EDC);
- The Solano College Small Business Development Center (SBDC);
- Workforce Investment Board of Solano County (WIB); and,
- The Solano Community College (SCC) Economic and Workforce Development program.

The programs and services supported by these entities fall within five of the six main categories discussed above—a distinct program focused on technology development is the only category missing within the ecosystem of economic development in Solano County.

### EDC

The EDC is the primary regional economic development entity in the County and focuses mainly on business attraction and marketing as well as business retention and expansion. With a broad mission of providing leadership for Solano County’s economic growth, the EDC’s work program also includes project management, advocacy, and strategic partnerships. Additionally, being a member-supported organization, the EDC puts on various events and offers programs that benefit members.



### SBDC

The SBDC provides services in the entrepreneurial and small business development and business finance categories including business training and technical assistance in a wide range of topics plus administration of a micro-enterprise loan fund.

### WIB and SCC

Both the WIB and SCC fall in the workforce development arena. Like most equivalent entities in California (State), the WIB offers hiring assistance for job seekers and employers, supports training for job readiness, and helps connect eligible parties to workforce incentives. The SCC’s related services offer training programs for employers through contract education.

## Maximizing ED Activities in Solano County

Regional economic development entities in Solano County are clearly providing some services in most of the standard economic development program categories. However, maximizing economic development at the regional level needs to address several other considerations beyond the basic question of the scope of program delivery.

First and foremost, investments need to be balanced across programs based on regional objectives. As established by Project objectives and economic data, diversifying the county economy is an overarching concern. This would suggest that rather than trying to build regional efforts equally across all six standard economic development program categories, investments should be directed toward programs that build capacity in areas that have the potential to influence diversification such as business attraction and marketing and business retention and expansion.

In addition to leveraging investments aimed at fostering, growing, and attracting targeted industries and clusters, there are several other key considerations in strategically designing an effective economic development ecosystem. Regional programs should focus on filling gaps in local programs or delivering a better return on investment in areas aligned with regional priorities. For example, an active regional role in collective business attraction and marketing with local jurisdictions in a responsive role often generates a better return on investment whereas an active local role in business retention and expansion with a supportive regional role is often a more effective delivery model. While the EDC's business attraction and marketing program is designed in this manner, business retention and expansion is currently weighted toward the regional versus local model.

Additionally, within regional entities, existing objectives should also align with expected outcomes. As an example, the EDC's primary focus is on business attraction and marketing as well as business retention and expansion, but only about 35 percent of the President's time (the only staff person besides the Office Manager) is spent, on average, in these two activity areas.

Further, contemporary tools should be integrated into regional programs to the greatest extent possible in order to maximize outcomes. For instance, in the business attraction and marketing arena, the most effective programs have built dynamic web sites that are responsive to user demands, offer robust public relations and media services, and have cultivated a variety of lead generation resources. Currently, the EDC does not provide any of these contemporary tools.

## **Regional ED Resources and Program Delivery**

Limited available resources and program delivery are clearly driving economic development outcomes and the integration of contemporary tools for the EDC. The EDC has been operating in the red for eight of the past eleven years and has distributed staff time to areas that generate revenue and allow the organization to keep the doors open. Moreover, marketing accounts for only 10 percent of the EDC's current \$328,000 annual budget or about \$0.08 per capita. By way of comparison, the marketing budgets of regions with highly effective business attraction and marketing programs average about \$1 per capita.

On the other hand, the regional small business and workforce development entities are primarily supported by public sector funding or fee-based revenue, which have remained relatively steady in recent years.

As suggested above, business attraction and marketing plus business retention and expansion are the two standard economic development categories that have the greatest potential to affect economic diversification and the EDC is responsible for regional programs in both these areas.

With diversification being a core regional priority, additional resources need to be directed toward relevant economic development programs as a means to realize enhanced outcomes. There appears to be some capacity for higher revenue levels (and corresponding program capacity) at the EDC based on historical financial records. For example, in 2008, total annual revenue was over \$515,000, more than 36 percent higher current levels. However, if the fundraising environment in the county is not expected to return to 2008 dynamics, then additional strategic partnerships that help build program capacity might be a viable opportunity for the EDC to explore.

Changing the program delivery model at the EDC is another approach that could generate greater outcomes aligned with the regional goal of economic diversification. Although it might be difficult in the current budget realities, the most basic program delivery change at the EDC could be to rebalance staff capacity to allow for more than 35 percent of the President’s time to be directed toward key economic development activities.

## ED Entity Case Studies

Another fundamental topic to explore is the partnership or private sector model of economic development at the county level. Only a handful of private-sector local- or county-based economic development entities exist in California. Many of the existing private entities serving a specific county represent areas with larger populations than Solano County and are not necessarily integrated within the planning area of a larger economic region like the Bay Area. Moreover, most of the existing entities represent local economies that are significantly different from Solano county and even one another.

A few examples of single-county, countywide economic development entities organized under a partnership or private model in Northern California include: the Economic Development Corporation of Tulare County; the San Joaquin Partnership; the Sonoma Valley Economic Development Partnership; and the Economic Development Corporation serving Fresno County.<sup>2</sup> Although the regions vary significantly from Solano County, the economic entity case studies provide valuable insights. Specifically, reviewing how these entities present themselves, and organize and provide services, reveals that each entity generally supports more robust economic development tools and programs than the Solano EDC.

- **Economic Development Corporation of Tulare County.** The Economic Development Corporation of Tulare County focuses primarily on business attraction and marketing and has incorporated a wide range of contemporary economic development tools such as a unique marketing campaign (Experience Sequoia Valley), dynamic web site with detailed content and an active real estate database, and proactive targeted company and trade show outreach. The organization is one of only two International Economic Development

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<sup>2</sup> Additional information on the example economic development entities is available on their web sites:

- Economic Development Corporation of Tulare County: <http://www.sequoiavalley.com/>
- San Joaquin Partnership: <http://www.sanjoaquinusa.org/>
- Sonoma Valley Economic Development Partnership: <http://www.sonomavalley4biz.com/>
- Economic Development Corporation serving Fresno County: <http://www.fresnoedc.com/>

Council (IEDC) Accredited Economic Development Organizations in California, supports a five-person staff, and generated revenue of over \$936,000 in its 2012-2013 Fiscal Year. On average over the past 10 years, the organization has assisted with new locations, expansions, or retentions affiliated with six companies supporting almost 240 jobs per year.

- **San Joaquin Partnership.** The San Joaquin Partnership's core economic development activities include business attraction and marketing as well as business retention and expansion. Similar to the Economic Development Corporation of Tulare County, the organization has a proactive business outreach program and maintains a dynamic web site with relevant content and contemporary tools. In its 2012-2013 Fiscal Year, the organization saw revenue totaling about \$891,000 and maintained a staff of five. During this period, the organization reported nearly 1,100 direct jobs resulting from 16 new business location, expansion, and company retention projects.
- **Sonoma Valley Economic Development Partnership.** With a primary role of coordinating resources, the Sonoma Valley Economic Development Partnership focuses on marketing and business events. As such, the organization undertakes marketing initiatives and incorporates a wide range of informational resources on its web site, which receives roughly 440 unique visitors per month. With many of the business assistance programs implemented through partner entities (city, county, and chamber of commerce), the organization currently supports only one staff coordinator position and maintains a budget of roughly \$90,000.
- **Economic Development Corporation serving Fresno County.** The largest of the example organizations, the Economic Development Corporation serving Fresno County has a staff of 13 and a budget of almost \$1.4 million. In addition to a heavy focus on business attraction and marketing as well as business retention and expansion, the organization provides regional leadership on catalytic initiatives (e.g. high speed rail and poverty alleviation). Like in Tulare and San Joaquin, the Economic Development Corporation serving Fresno County has a robust set of economic development services and tools. Among the accomplishments listed in its 2013 Annual Report, the organization cited 23 new corporate locations with 1,300 direct jobs associated.

Considering that Solano County competes with other locations within and outside the State for business location and expansion opportunities, creating any notable outcomes and facilitating greater economic diversity will be difficult if regional economic development programs and resources are not on par with those of other public and private sector entities in highly competitive areas.

As referenced above, it is important to note that while every community supports notably different economic conditions and assets, the comparison of program delivery across case studies, particularly within the same state, is relevant to understanding organizational efficiency and outcomes. While the goal of economic development is to affect economic outcomes in the long-term, related programs and services often have a relatively small impact on community economic performance and the development of assets in the short-term when looking at a full range of factors influencing the economy as a whole.

## ED Performance Metrics

Atlas Advertising’s *Why Metrics Matter* report presents the results of a performance measurement survey of more than 200 primarily deal-driven economic development entities in the country and abroad.<sup>3</sup> Based on several years of research, the authors posit that generating awareness through marketing and outreach leads to conversations with companies, which ultimately results in additional investment and jobs in the community.

As illustrated in **Table 2**, the survey results show that, on average in a 12-month period, entities serving geographic areas with a population similar to the county’s population (between 250,000 and 1 million residents) achieved the following outcomes: conducted about 160 conversations with prospective, existing, or entrepreneurial companies looking to expand or relocate; announced nearly 1,700 new or expanded jobs as a result of economic development efforts; and, gained about \$336 million of capital investment from the new or expanding companies in the community.

**Table 2. Economic Development Outcomes Benchmarks**

POPULATION	 CONVERSATIONS PAST 12 MONTHS	 AVERAGE JOBS ANNOUNCED LAST 12 MONTHS	 AVERAGE CAPITAL INVESTMENT ANNOUNCED LAST 12 MONTHS
Less than 25,000	43	115	\$24,951,083
25,001 to 100,000	90	411	\$81,263,040
100,001 to 250,000	112	737	\$330,501,622
250,001 to 1,000,000	157	1,696	\$335,914,394
1,000,000 to 2,500,000	327	3,035	\$378,869,231
Over 2,500,000	603	6,134	\$502,258,333
<b>AVERAGE FOR ALL SIZES</b>	<b>146</b>	<b>1,293</b>	<b>\$234,366,814</b>

Source: Atlas Advertising, *Why Metrics Matter*

<sup>3</sup> The full Atlas Advertising report is available at: <http://www.atlas-advertising.com/>.

### **Performance Metrics in the County**

While the EDC does not formally document or publish outcomes, an ad-hoc review of 2011-2012 activities demonstrates outcomes much lower than these benchmarks. During this period, the EDC assisted with the competitive expansion of 5 companies supporting a total of 300 jobs, as well as provided support for several other ongoing retention projects.

Enhanced resources and greater program focus on regional business attraction and marketing and business retention and expansion should allow the County to more closely achieve national benchmarks for economic development outcomes.

It is important to note that the economic development profession is migrating toward performance-based systems where metrics and outcomes are used to demonstrate the value or logic of the programs and services provided and give confidence to investors regarding return on investment. With a need to enhance resources, the EDC and other entities in the county should begin to more proactively track and report outcomes.

### **Conclusions**

Overall, the review of the economic development ecosystem in Solano County suggests that regional leaders and stakeholders should consider addressing the following four items:

1. Rebalance program focus for economic diversification—emphasize business attraction and marketing as well as business retention and expansion.
2. Integrate contemporary tools for economic development—invest in activities that generate increased awareness and conversations with companies.
3. Enhance resources and strategic partnerships—build sustained capacity for program priorities.
4. Adopt a performance-based system—continuously demonstrate value and outcomes to companies and investors regardless of current resource levels.

Changing the economic development ecosystem should allow the county to compete more effectively for new business locations and expansions, build economic vitality, and facilitate greater economic diversity.

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**MEMORANDUM III:**  
**County Strengths, Weaknesses,  
Opportunities, and Threats Analysis**

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## **MEMORANDUM**

To: County of Solano

From: Moving SOLANO Forward Project Team

Subject: Strengths, Weaknesses, Opportunities, and Threats Analysis; EPS #132024

Date: April 2, 2014

### **Introduction**

This Strengths, Weaknesses, Opportunities, and Threats Analysis (SWOT Analysis) memorandum is the third of four key inputs for the Moving SOLANO Forward (MSF) project (Project), a project to develop a countywide strategic approach to further diversify the economic base of Solano County (county).<sup>1</sup> This memorandum, as well as the previous two memoranda (Demographic and Economic Profile and Real Estate Analysis and Regional Economic Development Programs and Services Evaluation) and forthcoming Viable Industries and Clusters memorandum, will serve as contributions to the Economic Diversification Study Report (Study Report), which will be prepared and presented to stakeholders in June 2014.

The SWOT Analysis is an analytical tool used to identify internal and external characteristics pertaining to economic development in the county. The SWOT Analysis will allow the county to gain a better understanding of current, high-priority characteristics to develop strategies to effectively diversify its local economy.

This memorandum describes the methodology used to develop the SWOT Analysis, the detailed SWOT Analysis presented to MSF stakeholders during meetings conducted in February 2014, and a prioritized SWOT Analysis based on input from MSF stakeholders. The Project Team will use those characteristics that were elevated to the highest priority, among other key inputs, to develop economic diversification strategies for stakeholders' consideration for inclusion in the Study Report.

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<sup>1</sup> In this report, Solano County and the abbreviation "county" refer to the geographic boundaries of the county and all cities contained therein. The political and administrative entity will be referred to as "County of Solano." Any reference to other counties will include the specific county name.

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## SWOT Analysis Purpose and Methodology

The SWOT Analysis is a comprehensive examination of strengths, weaknesses, opportunities, and threats related to economic development. A thoughtful and prioritized SWOT Analysis will directly lead to effective economic diversification strategies and implementation actions.

The MSF SWOT Analysis was compiled from various sources of information, including these:

- Primary research related to demographic and economic trends and characteristics.
- Input from MSF Partners and Review Committee.
- Interviews with county jurisdictions and key county employers.
- Interviews with local real estate professionals.
- Review of published reports on county economy and clusters.
- Professional expertise based on previous economic development projects.

The SWOT Analysis is organized by internal factors (strengths and weaknesses) and external factors (opportunities and threats). Internal factors are those characteristics in which communities can have an influence in the short to medium term. External factors are those characteristics driven by outside forces and generally are beyond the influence of local communities. Specific internal and external factors are further defined below:

- **Strengths (Positive, Internal):** Positive attributes or assets present in the county, particularly in comparison to nearby regions.
- **Weaknesses (Negative, Internal):** Local issues or characteristics that limit the current or future growth opportunities for the county.
- **Opportunities (Positive, External):** External dynamics that could create opportunities for the county's economic vitality (e.g., strategic initiatives, aggressive marketing or promotion, targeted investment).
- **Threats (Negative, External):** Broad trends that threaten the county's future and attractiveness to new industry (e.g., global changes or shifts in consumer demand).

It is important to note the SWOT Analysis represents general themes present in the county; individual strengths, weaknesses, opportunities, and threats may apply to certain portions of the county but not to others. Further, specific strengths, weaknesses, opportunities, and threats listed in the SWOT Analysis may not be unique to the county but were included to facilitate a discussion with stakeholders regarding county-specific strategies.

## SWOT Analysis

The Project Team developed and presented a comprehensive SWOT Analysis to MSF stakeholders during meetings held in February 2014. Specifically, the Project Team led MSF Partners through a prioritization exercise during the meeting held on February 19, 2014. The following week, the Project Team held a meeting with the MSF Review Committee, requesting input on the highest priority strengths, weaknesses, opportunities, and threats characteristics chosen by MSF Partners.

The purpose of prioritizing the SWOT Analysis was to provide the Project Team with guidance for creating a set of economic diversification strategies that will:

- **Promote** county **strengths**.
- **Address** county **weaknesses**.
- **Prepare** for county **opportunities**.
- **Mitigate**, to the extent possible, **threats** to the county.

**Table 1** summarizes the complete set of strengths, weaknesses, opportunities, and threats related to economic development in the county based on the various sources of information described above.

### **Prioritized Strengths, Weaknesses, Opportunities, and Threats**

**Table 2** shows the prioritized listing of strengths, weaknesses, opportunities, and threats based on input from the MSF stakeholders. The following sections briefly describe the priority strengths, weaknesses, opportunities, and threats characteristics chosen by stakeholders. The Project Team will use those SWOT characteristics elevated to the highest priority, in addition to other key inputs, to develop economic diversification strategies for stakeholders' consideration. After incorporating stakeholder feedback, the economic diversification strategies will be included in the Study Report.

#### ***Priority Strengths***

The county presents several internal strengths that enhance its economic diversification potential. Those strengths identified as having the greatest benefit from focused promotion are described below:

- **Strategic location with key transportation infrastructure.** The county's location is one of its greatest assets. The county is situated between two established regions—the San Francisco Bay Area and the Sacramento Region—and is adjacent to the Napa Valley, one of the world's premier wine regions, and the California Delta, a portion of which is within the county. The county contains key transportation infrastructure, including east-west transportation routes (Interstate 80, Interstate 780, State Route 37, and State Route 12) and north-south transportation routes (Interstate 680, State Route 113, and State Route 84), which provide options for people and goods movement and access to other markets; commercial freight and passenger rail lines; public transit services; Nut Tree and Rio Vista airports; and the Port of Benicia, a privately owned deep-water port that imports automobiles and exports petroleum with trading partners in Asia and South Pacific.
- **Large development opportunity areas.** Larger business and industrial sites are a key part of the county's ability to attract and retain large firms to manufacture products locally and reduce imports. These businesses can help anchor the region's economy and provide existing local companies with markets and services that drive employment growth. The county has 15 formally branded business parks containing more than 600 acres of "shovel-ready" land zoned to accommodate office and industrial development. In addition, the unincorporated county contains several large-scale development areas, although these areas would require substantial improvements to accommodate future business and industrial development.

- **Affordable housing stock and lower cost of living than the Bay Area.** With the exception of Benicia, the cities in the county have a substantially lower overall cost of living relative to key cities in the comparison geographies (e.g., Oakland, San Francisco, San Jose, and Roseville) and about the same cost of living as the City of Sacramento. Vallejo, Suisun City, and Rio Vista have the lowest overall cost of living in the county. In addition to Benicia, Vacaville, Dixon, and Fairfield have the highest cost of living of cities in the county, which is solely attributable to higher housing costs. Nevertheless, the county provides affordable housing opportunities for a greater percentage of households earning the median income than all of the comparison areas (San Francisco Bay Area, Sacramento Region, and the State of California [State]). Nearly three-quarters of all housing in the county (74 percent) is affordable to families earning the county median income. In comparison, 66 percent of housing in the Sacramento Region, 37 percent of housing in the “Rest of ABAG,, and 47 percent of housing in the State is affordable to families earning the median income.<sup>2</sup>
- **Natural assets for food and agriculture to support the Food Chain cluster.** In May 2011, the County of Solano’s and Yolo County’s Boards of Supervisors formally identified the Food Chain cluster with the publication of the Food Chain cluster report. In the report, the Food Chain was identified to comprise 10 percent of total economic output, which is not surprising, given the two counties share one of the most fertile agricultural regions in the world; contain vital transportation infrastructure, including interstate highways, airports, rail systems, and the port to get local commodities to the world marketplace; and house a leading university in agriculture research.<sup>3</sup>
- **Surplus utilities’ supply and capacity (water, sewer) in portions of the county.** Some portions of the county, in particular large development areas in Fairfield and Vacaville, enjoy surplus water and sewer capacity to accommodate immediate real estate demand.

#### **Priority Weaknesses**

Stakeholders identified several weaknesses that diminish its economic diversification potential. The following characteristics were identified by stakeholders as the highest-priority weaknesses the county should address to improve its economy:

- **Lack of unifying county brand/identity.** One of the county’s strengths—its diversity—also presents a challenge in developing a unifying county brand or identity that could be used for business attraction and marketing programs, which seek to facilitate new economic stimulation and diversification of the regional economy by proactively enhancing visibility of the region and drawing in new business investment.
- **Underperforming schools.** The “2013 Solano County Index of Economic and Community Progress” provides statistics regarding education in the county. As described, education data

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<sup>2</sup> As defined in the March 5, 2014, Solano County Demographic and Economic Profile and Real Estate Analysis memorandum, “Rest of ABAG” includes the counties contained in the Association of Bay Area Governments’ (ABAG) service area, net of the county.

<sup>3</sup> “The Food Chain Cluster: Integrating the Food Chain in Solano and Yolo Counties to Create Economic Opportunity and Jobs,” Collaborative Economics, May 2011.

for the county indicates the [high school] dropout rate remained stable at 4.7 percent in 2011–12.<sup>4</sup> The dropout population’s ethnic mix remains skewed toward African-American students. Asian students are showing continued progress with lower dropout rates, as well as larger numbers of students being University of California (UC)/California State University (CSU)-ready upon graduation. Overall, there has been steady growth in eligibility for CSU and UC campuses, but Solano remains slightly behind the state average.<sup>5</sup>

- **Gaps between workforce skills and local job opportunities.** Some existing employers in the county have identified a gap between employment opportunities and the workforce skills of residents. As an example, All-Points Petroleum, an employer in one of the county’s identified clusters (energy) is unable to fill all positions available because of a dearth of applicants with suitable skills. As the county focuses on growth in identified clusters, it will be imperative to understand workforce demand and training opportunities to address that demand.
- **Solano Economic Development Corporation (EDC) resource constraints.** Limited available resources and program delivery are clearly driving economic development outcomes and the integration of contemporary tools for the EDC. The EDC has been operating in the red for 8 of the past 11 years and has distributed staff time to areas that generate revenue and allow the organization to keep the doors open. Moreover, marketing accounts for only 10 percent of the EDC’s current \$328,000 annual budget, or about \$0.08 per capita. By way of comparison, the marketing budgets of regions with highly effective business attraction and marketing programs average about \$1 per capita. With diversification being a core regional priority, additional resources need to be directed toward relevant economic development programs as a means to realize enhanced outcomes.
- **Crime and public safety issues and other socio-economic challenges.** A theme that emerged from interviews with jurisdictions and key employers was a concern regarding increasing crime rates and decreased public safety in certain portions of the county. MSF stakeholders recognize addressing crime and improving public safety will assist in business attraction and retention efforts.

#### ***Priority Opportunities***

Opportunities for which the county can prepare include the following highest-priority strengths, weaknesses, opportunities, and threats characteristics:

- **Proximity to and location between two established and growing regions.** As discussed previously, the county is strategically located between two established and growing regions—the San Francisco Bay Area and the Sacramento Region. The momentum created by growth and development in proximate established regions buoys economic diversification potential.

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<sup>4</sup> Data provided by the California Department of Education.

<sup>5</sup> “Solano County 2013 Index of Economic and Community Progress,” County of Solano and Solano Economic Development Corporation, March 2014.

- **Visibility from Interstate 80 for multiple communities.** Many communities in the county—Vallejo, Fairfield, Vacaville, and Dixon—benefit from their visibility from high levels of motorist activity on Interstate 80.
- **Major research-oriented institutions in surrounding regions.** Research-oriented institutions, particularly aligned with identified clusters of focus in the county, in nearby regions include UC Davis, UC Berkeley, Lawrence Livermore National Laboratory, Lawrence Berkeley National Laboratory, and Sandia National Laboratory.
- **Broad national attention and international demand related to energy, food, medical, and agriculture products.** National and global demand for energy, food, medicine, and materials along with the associated investments in related research and development activities (including at proximate institutions like UC Davis and UC Berkeley) reveals the broader opportunities in all of the identified clusters of focus for the county. The strength of the regional clusters can be enhanced if county activities can respond to these demands and opportunities.

#### ***Priority Threats***

The following threats were identified as those characteristics for which stakeholders would like to mitigate, to the extent possible. It is worth noting that many of the threats identified are not unique to the county:

- **Lack of State and Federal funding for infrastructure.** It is valuable to note the “macro” trends influencing municipal infrastructure financing. Economic, fiscal, and political trends over the past several decades, beginning with Proposition 13 in 1978, sowed the seeds for the growth in service costs and revenue constraints now facing local jurisdictions in the State. These “macro” trends include: a shift in financing responsibilities to local governments; the advent of constitutional and statutory restrictions on municipal revenues; increasingly higher public expectations regarding municipal levels of service and infrastructure standards; increasingly onerous federal and State regulatory standards and mandates; and an increasing shift of infrastructure costs to new development. These trends compound the lingering effects of the recent Great Recession and underscore the need for cost control, diversification of funding sources, and a thoughtful infrastructure financing strategy to support future economic diversification goals.
- **Challenges associated with negative perceptions of doing business in California.** Negative perceptions of doing business in California dampen the economic diversification potential for all communities in the State.
- **Regulatory impediments.** The lack of funding from federal and State government has not slowed the growth in mandates related to water quality, habitat conservation, pollution controls, and other rules that have increased cost burdens on both local governments and the private sector. Compliance with these mandates results in expenditures that compete for resources needed for both municipal services, and publicly- and privately-funded capital costs (e.g., infrastructure and construction costs).

- **Elimination of redevelopment and modified State incentive structure.** On February 1, 2012, redevelopment programs in the State were dismantled as a consequence of the State's challenging budget situation and state legislation enacted in 2011. The termination of State's 60-year program in redevelopment ended the longest and most successful program in the State to create and preserve jobs, boost local economies, increase taxes and other revenues to local governments, revitalize blighted areas, and produce affordable housing for low- and moderate-income residents. The State, its regions, and local communities face a broad range of future challenges and opportunities, including the need for infrastructure investment, sustainable development to meet the state's carbon emission reduction goals, remediation of contaminated sites (including closed military bases), affordable housing for low- and moderate-income residents, and job creation through economic development. These needs present a compelling case for both the creation of new tools and the restoration of key tools lost with redevelopment's elimination.<sup>6</sup>
- **Negative perceptions of the county and lack of a positive business identity.** As a corollary to the weakness described above (lack of unifying county identity), the county suffers from negative external perceptions. The negative external perception is generated by a lack of awareness of amenities and advantages the county has to offer, as well as the existing perception of the county as a region with an unfriendly business climate because of statewide regulations and policies.

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<sup>6</sup> "After Redevelopment: New Tools and Strategies to Promote Economic Development and Build Sustainable Communities." Urban Land Institute San Francisco District Council, November 2013.

**Table 1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

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**Strengths (Internal)**

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- Strategic location with key transportation infrastructure (highways, rail, deep water port)
  - TAFB location and role in economy
  - Vacant land supply in portions of the county
  - Large development opportunity areas: Mare Island; Solano 360; Fairfield Train Station; business parks throughout county
  - Surplus utilities capacity (water, sewer) in portions of the county
  - Higher educational institutions: Touro University; California State University Maritime Academy; Solano Community College (SCC); UC Davis; University of Phoenix; Sonoma State University
  - SCC programs and private development partnerships (e.g., STEM)
  - Multiple health care facilities: Kaiser Permanente; Sutter Solano Medical Center; North Bay Healthcare; Veterans Affairs Clinic; La Clinica; David Grant Medical Center
  - Collaboration between Touro and Solano County Health Department
  - Travis Air Force Base, Doolittle Museum and associated airplane-oriented culture
  - County assets: open space; water-related recreation; agritourism
  - Wine and California Delta regions along Highway 12
  - Strength in Energy, Life Sciences, Food Chain, and Advanced Materials clusters with identifiable existing companies
  - Emerging wine-support industry
  - Geographic diversity of county
  - Competitive lease rates relative to neighboring counties
  - Generally competitive cost of doing business
  - Affordable housing stock and lower cost of living than the Bay Area region
  - Strong taxable sales growth and industry specialization in consumer-driven sectors
  - Large existing workforce population
  - Healthy employment growth forecasts
  - Relatively high income levels
  - Favorable conditions for local energy generation
  - Natural assets for food and agriculture
  - Natural gas and electric transmission grids intersect the county
  - Industrial waterfront commerce
  - Waterfront commerce
  - Alternative energy hub
  - Seismic stability
- 

Source: Interviews with Solano county jurisdictions, real estate brokers, key employers; EPS.

**Table 1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

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**Weaknesses (Internal)**

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- Crime and public safety issues
  - Underdeveloped downtowns or areas that convey a unique sense of place
  - Underperforming schools (relative to competitive regions); declining graduation rates
  - Lower rate of higher-educational attainment relative to proximate regions and the State
  - Negative internal perceptions of the county
  - Lack of unifying county brand/identity
  - EDC: resource constraints affecting program delivery and available economic development tools
  - Lack of investment-ready land and properties in portion of the county
  - Limited opportunities for growth in portions of the county
  - Limited availability of food and agriculture processing facilities to meet expected demand
  - Aging or inadequate infrastructure (e.g., roads, broadband, utilities, sewer and water capacity)
  - Aging building stock driving vacancies within business parks
  - Slow pace of remediation on Mare Island
  - Challenges attracting capital investment
  - Gaps between workforce skills and local job opportunities
  - Lack of training available for specific industries in the county (focused on existing clusters)
  - Post-Travis labor force underutilized
  - Urban building typologies are financially infeasible (infill in post-redevelopment era)
  - Decline of local government revenues
  - Lack of economic incentives to offer
  - Slow population growth
  - Workforce aging and declining young population
  - Challenges attracting young, college-educated workers
  - Worker outflow and relatively long commute times
  - Limited economic diversity
  - Low share of economic base activities
  - Poor performance on innovation indicators
  - Lack of consistency in permitting among county jurisdictions
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Source: Interviews with Solano county jurisdictions, real estate brokers, key employers; EPS.

**Table 1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

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**Opportunities (External)**

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- UC Davis prominence in research and education in sustainability and food fields
- Collaboration between UC Davis and agricultural, R&D land uses in county
- Major research-oriented institutions in surrounding regions - UC Davis, UC Berkeley, LLNL, LBNL, and Sandia NL
- SF Bay Area life sciences hub
- Momentum from statewide economic recovery
- International demand for energy, food, and agriculture products
  
- Broad national attention on energy, food, and health issues
- Proximity to and location between two established and growing regions: the San Francisco Bay Area and the Sacramento regions
- Proximity to capital markets in the Bay Area and Sacramento regions
- Proximity to California's premier wine region and larger Delta region
- Visibility for multiple communities from I-80

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Source: Interviews with Solano county jurisdictions, real estate brokers, key employers; EPS.

**Table 1**  
**Moving SOLANO Forward**  
**Economic Diversification Strategy**  
**Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

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**Threats (External)**

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- Regulatory impediments (e.g., CEQA; Regional Water Quality Control Board)
- Lack of State and Federal funding for infrastructure
- Available sites in competitive areas of adjacent regions
- Research and development, patent, and venture capital activity in targeted clusters in surrounding regions
- Somewhat lower cost of living in neighboring Sacramento Region and Central Valley
- Challenges associated with and negative perceptions of doing business in CA
- Economic development investments in surrounding and competitive regions
- Prevalence of similar targeted clusters in regions across the country
- Department of Defense budget decisions
- Elimination of redevelopment and modified state incentive structure
- Negative perceptions of County and lack of a positive business identity
- Volatility in energy industry

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"swot"

Source: Interviews with Solano county jurisdictions, real estate brokers, key employers; EPS.

**Table 2**  
**Prioritized SWOT Analysis**

<b>Strengths (Internal)</b>	<b>Weaknesses (Internal)</b>
1. Strategic location with key transportation infrastructure (highways, rail, deep water port)	1. Lack of unifying county brand/identity
2. Large development opportunity areas	2. Underperforming schools
3. Affordable housing stock and lower cost of living than the Bay Area region	3. Gaps between workforce skills and local job opportunities
4. Natural assets for food and agriculture to support the Food Chain cluster	4. EDC: resource constraints
5. Surplus utilities supply and capacity (water, sewer) in portions of the county	5. Crime and public safety issues and other socioeconomic challenges

<b>Opportunities (External)</b>	<b>Threats (External)</b>
1. Proximity to and location between two established and growing regions	1. Lack of State and Federal funding for infrastructure
2. Visibility from I-80 for multiple communities	2. Challenges associated with negative perceptions of doing business in the State
3. Major research-oriented institutions in surrounding regions	3. Regulatory impediments
4. Broad national attention on energy, food, and agriculture products	4. Elimination of redevelopment and modified state incentive structure
5. International demand for energy, food, medical, and agriculture products	5. Negative perceptions of county and lack of a positive business identity



MEMORANDUM IV:  
Viable Industry Sectors and  
Clusters Analysis

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**MEMORANDUM**

To: County of Solano  
 From: Moving SOLANO Forward Project Team  
 Subject: Viable Industries and Clusters Analysis; EPS #132024  
 Date: April 8, 2014

This memorandum summarizes an analysis of viable industries and clusters for which Solano County (county) should focus to assist in diversifying its economy.<sup>1</sup> This memorandum is the fourth and final key input for the Moving SOLANO Forward (MSF) project (Project), a project to develop a countywide strategic approach to further diversify the economic base of the county. This memorandum, as well as the previous three memoranda (Demographic and Economic Profile and Real Estate Analysis, Regional Economic Development Programs and Services Evaluation, and SWOT Analysis), will serve as contributions to the Economic Diversification Study Report (Study Report), which will be prepared and presented to stakeholders in June 2014.

**Introduction**

Travis Air Force Base (TAFB) is a major driver of the county regional economy. As cited in the March 5, 2014, "Solano County Demographic and Economic Profile and Real Estate Analysis" memorandum, TAFB's 2012 Economic Impact Analysis reports that their workforce consists of over 13,000 military and civilian employees. Of this total, nearly 8,200 employees are estimated to live in the local area (2 percent of the county's total population). In addition, almost 16,000 military and civil-service retirees reside in the county (4 percent of the county's total population). TAFB's role as an economic driver is also reflected in the fact the largest sector in the county is Government, with almost 20 percent of the county's payroll employment, which is in large part due to civilian employment at TAFB. Noting the county's reliance on TAFB as an economic driver, the impetus for the Project is to diversify the county economy to create a more balanced set of economic drivers.

As discussed in the March 3, 2014, "Regional Economic Development Programs and Services Evaluation" memorandum, to address the regional objective of diversifying the county economy, investments in regional economic development should be directed toward programs that build capacity in areas that have the potential to influence diversification such as business attraction and marketing and business retention and expansion.

Rather than a "shotgun approach" to economic development, where all prospects are pursued with little justification, effective delivery of business attraction and marketing and business retention and expansion programs requires focusing limited resources on targeted industries and clusters

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<sup>1</sup> In this memorandum, Solano County and the abbreviation "county" refer to the geographic boundaries of the county and all cities contained therein. The political and administrative entity will be referred to as "County of Solano." Any reference to other counties will include the specific county name.

that demonstrate viable opportunities for growth and development in the local economy.<sup>2</sup> For example, targets should be used in the process of selecting industry trade shows to attend, choosing existing companies for site visits, identifying gaps in the value chain, singling out related site selection professionals, and developing marketing materials.

The Solano Economic Development Corporation (EDC) already has taken some initial steps to identify viable targets. However, as mentioned in the previous memorandum, the organization has not had the ability to devote substantial resources toward delivering business attraction and marketing and business retention and expansion programs in recent years because of budget constraints. This memorandum discusses recommendations for viable industries and clusters to be used for targeting limited resources in existing and enhanced countywide business attraction and marketing and business retention and expansion programs.

## Industries

**Table 1** provides a summary of key economic factors for all major industries in the county. The highlighted cells show the five industries that posted the strongest performance for each factor. Industries that have demonstrated consistent strong performance across several factors can be viewed as those with the most viable opportunities for continued growth because the unique dynamics and characteristics in the county have allowed them to see relatively healthy economic conditions. Excluding Government, which generally is not a focus of economic development, 4 industries were among the top performers in 5 or more of the 11 factors presented in **Table 1**. These industries should be used, in part, to inform targeting efforts:

- **Manufacturing** presents several desirable characteristics in the county. The industry is relatively large (both in terms of employment and output), contains exclusively economic base activities, supports strong compensation per employee levels, and is a field where a notable share of residents are employed both in and outside the county. It is important to note that Manufacturing is becoming an increasingly output-driven industry, with output specialization, high output per employee levels, and strong output growth, while employment levels in the industry are underspecialized and declining.<sup>3</sup>
- **Health Care & Social Assistance** is a large, growing, and specialized industry based on both employment and output in the county. Among all the major sectors, it is the industry where the largest share of county residents work.<sup>4</sup>

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<sup>2</sup> Economic activities can be analyzed both in terms of major groupings of establishments according to similarity in the processes used to produce goods or provide services (industries or sectors) or concentration of competing, complementary, and independent establishments across various industry sectors representing an entire value chain and beyond (clusters). In both cases, the North American Industrial Classification System (NAICS) is the basis for defining various economic activities: <https://www.census.gov/eos/www/naics/>.

<sup>3</sup> The Manufacturing sector comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

<sup>4</sup> The Health Care & Social Assistance sector comprises establishments providing health care and social assistance for individuals.

## VIABLE INDUSTRIES AND CLUSTERS

- **Natural Resources & Mining** is composed of all economic base activities. Jobs and economic value in the industry have been increasing over the past decade in the county. The industry also supports strong output and compensation per employee levels.<sup>5</sup>
- **Retail Trade** accounts for relatively large shares of total county employment and output. The industry is specialized with greater proportions of employment and output than the statewide average. A significant number of county residents also are employed in this industry. It is important to note that while this industry has seen success in the county, it supports only a limited amount of economic base activity, as well as lower output and compensation per employee levels. Therefore, opportunities in this area should be weighed carefully alongside other viable industries.<sup>6</sup>

**TABLE 1—MAJOR INDUSTRY ECONOMIC PERFORMANCE SUMMARY**

Major Sector	2002-2012 Growth		2012 Composition		2012 Specialization	
	Employment	Output	Employment	Output	Employment	Output
Agriculture, Forestry, Fishing, & Hunting	-37.6%	30.2%	1.3%	1.1%	86.2%	66.3%
Natural Resources & Mining	36.6%	110.3%	0.2%	0.8%	113.4%	66.7%
Utilities	18.5%	62.8%	0.4%	1.6%	107.2%	113.5%
Construction	-27.5%	0.7%	6.5%	5.6%	162.5%	184.3%
Manufacturing	-0.1%	136.3%	8.3%	14.9%	96.4%	123.6%
Wholesale Trade	5.9%	59.0%	3.5%	5.3%	76.2%	94.6%
Retail Trade	-5.4%	18.3%	13.9%	8.5%	129.6%	136.6%
Transportation & Warehousing	61.4%	86.4%	3.4%	2.5%	117.9%	112.0%
Information	-37.8%	82.4%	0.9%	4.4%	31.4%	60.7%
Finance & Insurance	31.6%	49.9%	3.1%	4.4%	85.7%	78.7%
Real Estate & Rental & Leasing	-30.2%	8.6%	1.1%	8.4%	62.6%	57.1%
Prof., Sci., & Technical Svcs.	8.6%	60.8%	2.6%	3.9%	34.1%	41.3%
Mgmt. of Companies	-59.9%	-27.3%	0.8%	1.1%	58.0%	72.8%
Admin. & Waste Svcs.	-28.5%	54.9%	3.8%	3.3%	59.4%	111.2%
Educational Svcs.	66.7%	110.4%	1.3%	0.6%	55.2%	53.4%
Health Care & Social Assistance	30.0%	101.9%	14.6%	10.7%	138.7%	160.1%
Arts, Ent., & Recreation	24.3%	140.1%	2.2%	1.6%	123.0%	120.2%
Accom. & Food Svcs.	5.8%	36.4%	8.9%	2.9%	97.0%	104.1%
Other Svcs.	5.2%	33.0%	3.2%	2.1%	93.2%	102.1%
Government	-8.6%	40.7%	19.9%	16.4%	123.0%	144.4%

<sup>5</sup> The Natural Resources & Mining sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas.

<sup>6</sup> The Retail Trade sector comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

VIABLE INDUSTRIES AND CLUSTERS

**TABLE 1 CONTINUED—MAJOR INDUSTRY ECONOMIC PERFORMANCE SUMMARY**

Major Sector	Economic Base Share		Output per Employee	Comp. per Employee	Resident Worker Share
	Employment	Output			
Agriculture, Forestry, Fishing, & Hunting	100.0%	100.0%	\$106,743	\$23,597	1.4%
Natural Resources & Mining	100.0%	100.0%	\$463,268	\$70,228	0.2%
Utilities	0.0%	0.0%	\$466,416	\$150,010	1.2%
Construction	0.0%	0.0%	\$110,339	\$62,045	7.1%
Manufacturing	100.0%	100.0%	\$233,251	\$109,847	9.2%
Wholesale Trade	100.0%	100.0%	\$193,423	\$64,645	2.7%
Retail Trade	16.1%	15.7%	\$79,711	\$28,282	11.5%
Transportation & Warehousing	86.5%	88.7%	\$93,928	\$17,959	5.2%
Information	71.6%	77.5%	\$611,960	\$52,787	2.1%
Finance & Insurance	25.0%	25.1%	\$186,430	\$41,810	4.8%
Real Estate & Rental & Leasing	16.7%	6.9%	\$1,017,111	\$15,010	2.4%
Prof., Sci., & Technical Svcs.	5.0%	10.0%	\$194,117	\$34,882	4.8%
Mgmt. of Companies	100.0%	100.0%	\$171,020	\$107,642	0.0%
Admin. & Waste Svcs.	0.0%	0.0%	\$113,907	\$31,144	4.0%
Educational Svcs.	0.0%	0.0%	\$57,035	\$30,307	7.6%
Health Care & Social Assistance	0.0%	0.0%	\$94,935	\$65,855	14.8%
Arts, Ent., & Recreation	30.5%	12.4%	\$96,631	\$17,595	2.2%
Accom. & Food Svcs.	7.1%	10.5%	\$42,953	\$18,394	6.5%
Other Svcs.	0.0%	0.0%	\$85,300	\$27,466	4.4%
Government	38.1%	53.8%	\$106,821	\$102,500	0.0%

Center for Strategic Economic Research, March 2014

Data Sources: Moody's Analytics, U.S. Census Bureau, and IMPLAN

## Clusters

By breaking apart major industries into their more narrowly defined components, specific business activities can be arranged into clusters or groupings of related activities based on concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions. Expanded economic development opportunities can be realized by facilitating growth and development across an entire value chain and related infrastructure and services as an alternative to efforts focused on a specific industry sector. Over the past decade, many regions have adopted this cluster-based concept in their economic development efforts to boost competitiveness and enhance economic vitality.

Like many smaller regions, the county does not necessarily possess fully integrated clusters; nevertheless, there are core activities in the economy that already play a role in or can be networked into larger clusters that have a presence in surrounding regions or are more broadly geographically dispersed. As mentioned above, the county has embraced this concept and has already taken initial steps to identify specific cluster opportunities in the county. In 2009 and 2011, the County of Solano, in collaboration with the Solano EDC, procured a series of cluster studies focusing on Energy, Life Sciences, and the Food Chain. These studies defined the clusters, examined economic performance, and offered a set of recommendations for supporting enhanced growth.<sup>7</sup>

Because it has been several years since a more comprehensive evaluation of cluster opportunities in the county has been conducted, the Center for Strategic Economic Research (CSER) completed an analysis to validate identified opportunities and identify additional viable cluster activities. It is important to distinguish that the recommendations supporting this analysis are specifically related to the delivery of enhanced business attraction and marketing and business retention and expansion programs and the need to target limited resources in these areas and not necessarily the creation of stand-alone, cluster-based programs that integrate a wide variety of services specifically created for cluster development (which some larger, integrated, and more mature regions have adopted).

CSER analyzed historical and projected economic performance across nearly 300 detailed economic activities in the county to identify a set of potentially viable cluster opportunities. In addition to economic performance, a set of cluster screens and several other factors were evaluated to assess the viability of the identified clusters.<sup>8</sup>

Ultimately, four viable clusters were identified based on CSER's methodology—Energy, Food Chain, Medical & Life Sciences, and Advanced Materials. Three of the four are similar to those clusters identified in the previous studies, but the definition of each cluster has been modified to include additional economic activities.

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<sup>7</sup> The previous cluster studies are available at [http://www.solanocounty.com/depts/bos/working\\_to\\_create\\_jobs/economic\\_studies.asp](http://www.solanocounty.com/depts/bos/working_to_create_jobs/economic_studies.asp).

<sup>8</sup> The Technical Approach section at the end of this memorandum describes the cluster selection methodology.

**Table 2** summarizes the characteristics for each of the four recommended clusters. In addition to basic employment and output factors, the table shows the share of economic activities included in the cluster definition that meet seven separate screens:

1. Economic base—export-oriented and generate net new wealth in the regional economy
2. Gazelle company presence—include small and medium enterprises that have posted 20-percent or greater growth in the past 5 years
3. Travis Air Force Base (TAFB) California demand—among the largest dollar volume of goods and services contracts procured in California
4. Above-average compensation—supports compensation (salaries/wages and benefits) levels above the regional industry average
5. Commodity import—create commodities largely imported into the region and present import substitution opportunities
6. Regional linkages—act as main suppliers to the largest sectors in the region or heavily use the products and services of the large sectors as inputs
7. Occupational match—typical employment structure makes use of occupations with a strong presence amongst the local resident workforce

The clusters range in size from approximately 5,400 jobs to 11,000 jobs and \$1.4 billion to \$2.2 billion of output. Ten-year employment growth forecasts fall between -5 percent and 32 percent, with output growth forecasts between 52 percent and 78 percent. It is important to note that the definitions of each cluster are not mutually exclusive—there is overlap across several economic activities that are necessarily integrated into two or more clusters because of the diverse range of included products and services. For example, the Management, Scientific, and Technical Consulting Services sector contains companies that are oriented toward the medical, agriculture, energy, and manufacturing fields. Therefore, it is not appropriate to sum the employment and output values to estimate the aggregate of the four clusters. Rather, examining the set of distinct economic activities captured across the four recommended clusters shows they support more than 29,000 jobs and \$5.2 billion of output. In terms of the share of the entire county economy, the four clusters directly account for about 33 percent of total output and 24 percent of total employment.

**TABLE 2—CLUSTER CHARACTERISTICS**

<i>Factor</i>	<i>Energy</i>	<i>Food Chain</i>	<i>Medical &amp; Life Sciences</i>	<i>Advanced Materials</i>
# Economic Activities	31 (23 New)	33 (2 New)	16 (11 New)	52
2012 Employment	5,390	9,481	11,382	8,407
2012 Output (\$M)	1,908	1,377	1,803	2,235
2012-2022 Employment Growth	31%	17%	32%	-5%
2012-2022 Output Growth	53%	63%	78%	52%
% Economic Base Activities	74%	82%	38%	96%
% Gazelle Company Activities	7%	6%	6%	2%
% TAFB CA Demand Activities	26%	9%	38%	12%
% Above Average Comp. Activities	74%	58%	69%	79%
% Commodity Import	32%	30%	31%	19%
% Regional Linkage Activities	23%	21%	44%	10%
% Occupational Match Activities [1]	0%	3%	13%	0%

Center for Strategic Economic Research, March 2014

Data Sources: Moody’s Analytics, National Establishment Time Series database, U.S. Census Bureau, Travis Air Force Base, and IMPLAN

Note: Economic activities are not mutually exclusive.

[1] The recommended clusters yielded an “Occupational Match Activities” percentage ranging from 0% to 13%. Although two of the clusters have a 0% match, this does not mean there is not *any* alignment with resident occupations. Rather, occupations in sectors within these clusters are not the most represented occupations among residents. However, these clusters emerged as viable clusters through CSER’s Economic Performance Index (EPI) selection process. Refer to the “Technical Approach” section of this memorandum for more details.

Four other facts about the group of recommended clusters are worth noting:

- First, each of the clusters has elements of emerging technologies, according to information published in the *MIT Technology Review*. This is important because the clusters likely will remain relevant for years to come as emerging technologies are fully developed and adopted and move through the product life cycle.<sup>9</sup>
- Second, the existing economic development strategies for local jurisdictions in the county align with one or more of the recommended clusters and do not stray far beyond in their targeted industries. It will be easier to adopt a countywide approach to targeting these clusters if there is already some momentum at the regional and local levels.
- Third, the global demand for energy, food, medicine, and materials along with the associated investments in related research and development activities (including at proximate institutions like UC Davis and UC Berkeley) reveals the broader opportunities in all four clusters. The

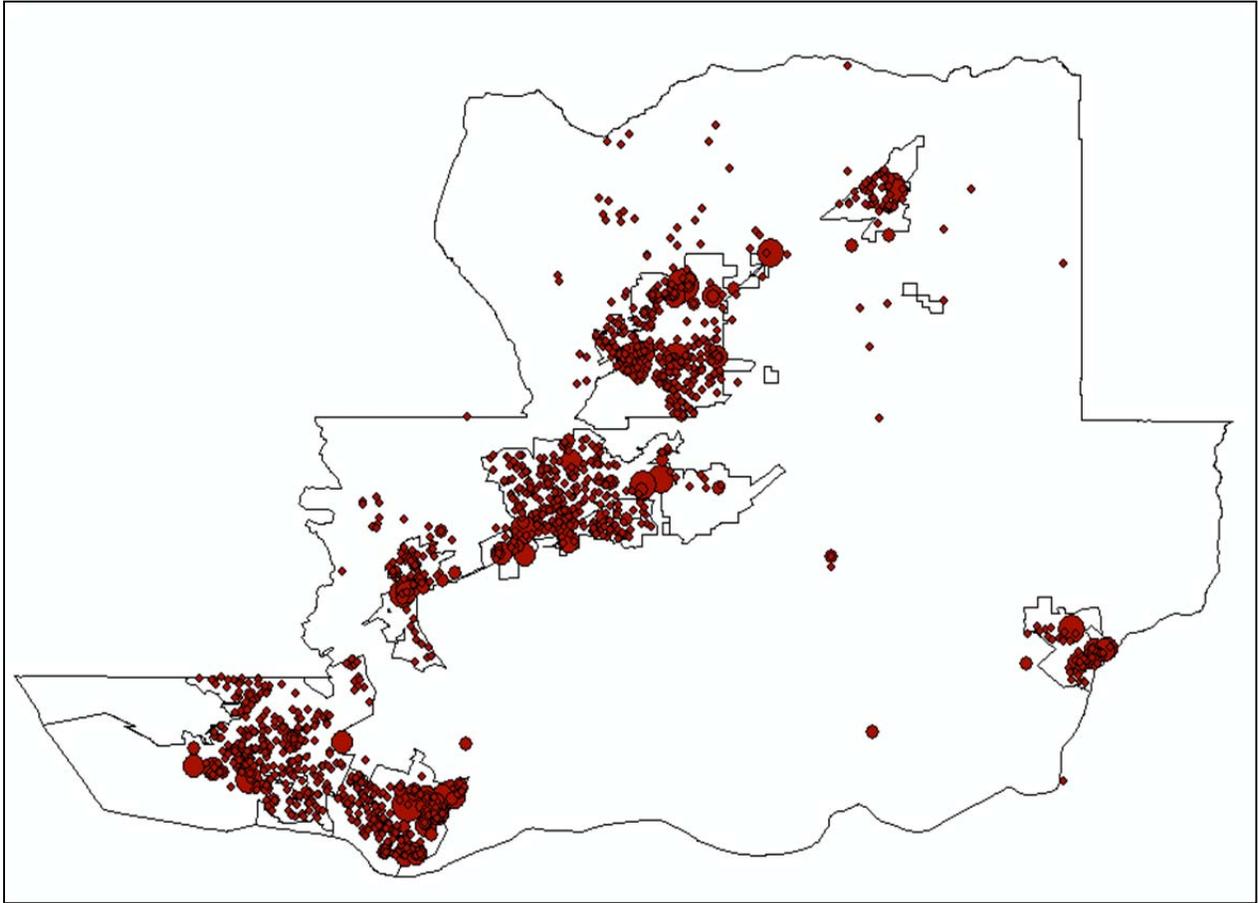
<sup>9</sup> Additional graphics of emerging technology trends aligned with the recommended clusters can be viewed on the Envisioning Technology Research Foundation web site: <http://www.envisioning.io/horizons/index.php>.

strength of the regional clusters can be enhanced if county activities can respond to these demands and opportunities.

- Fourth, the four clusters are becoming increasingly integrated, creating opportunities for connections and interconnected growth. For instance, life sciences interacts with energy in bio-fuels and agriculture in seed technology, while advanced materials relates to life sciences in drug development and energy in solar panels. Also, as the clusters continue to grow, they will increasingly rely on a robust network of business service and transportation, warehousing, distribution, and logistics providers. This will support further growth in linked industries in the county and in proximate regions.

**Figure 1** through **Figure 4** show the geographic concentration of the four clusters. This figure was developed by mapping all establishments in the county with primary business activities aligned with the cluster definitions. The sizes of the circles are based on relative establishment employment size in 2011. For the most part, the clusters are concentrated in the incorporated areas of the county, with the exception of the Food Chain, which has some notable presence in the unincorporated areas because of the integrated agricultural activities.

FIGURE 1—ENERGY CLUSTER GEOGRAPHIC CONCENTRATION

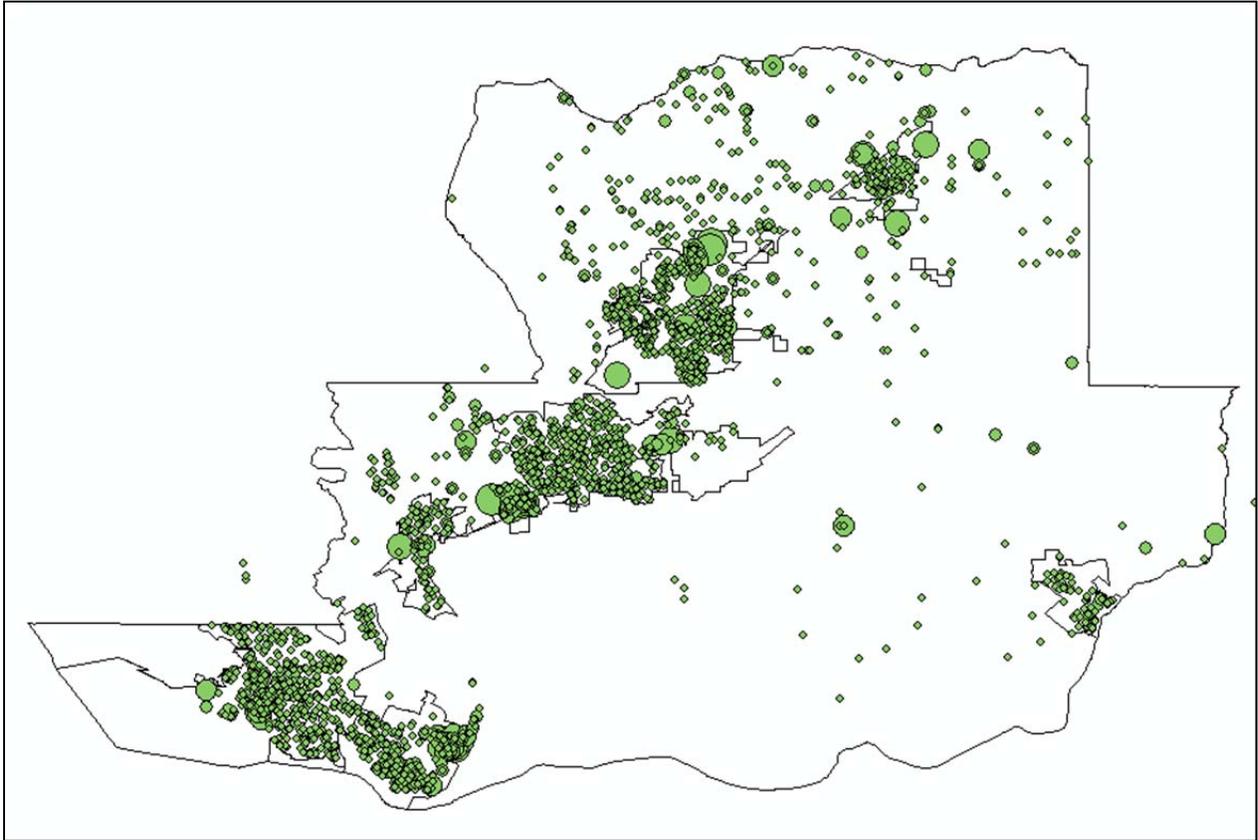


Center for Strategic Economic Research, March 2014

Data Source: National Establishment Time Series database

Note: Circle sizes are based on relative establishment employment size in 2011.

FIGURE 2—FOOD CHAIN CLUSTER GEOGRAPHIC CONCENTRATION

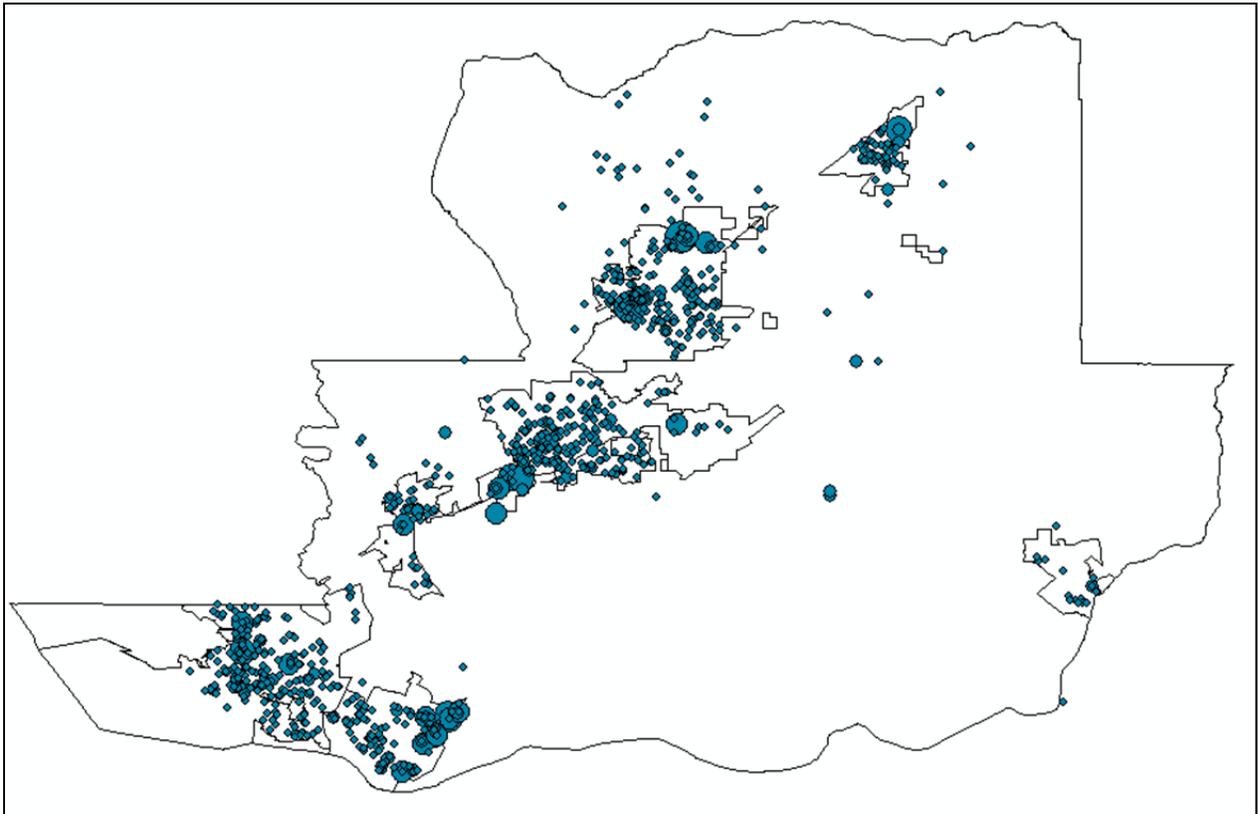


Center for Strategic Economic Research, March 2014

Data Source: National Establishment Time Series database

Note: Circle sizes are based on relative establishment employment size in 2011.

**FIGURE 3—MEDICAL AND LIFE SCIENCES CLUSTER GEOGRAPHIC CONCENTRATION**

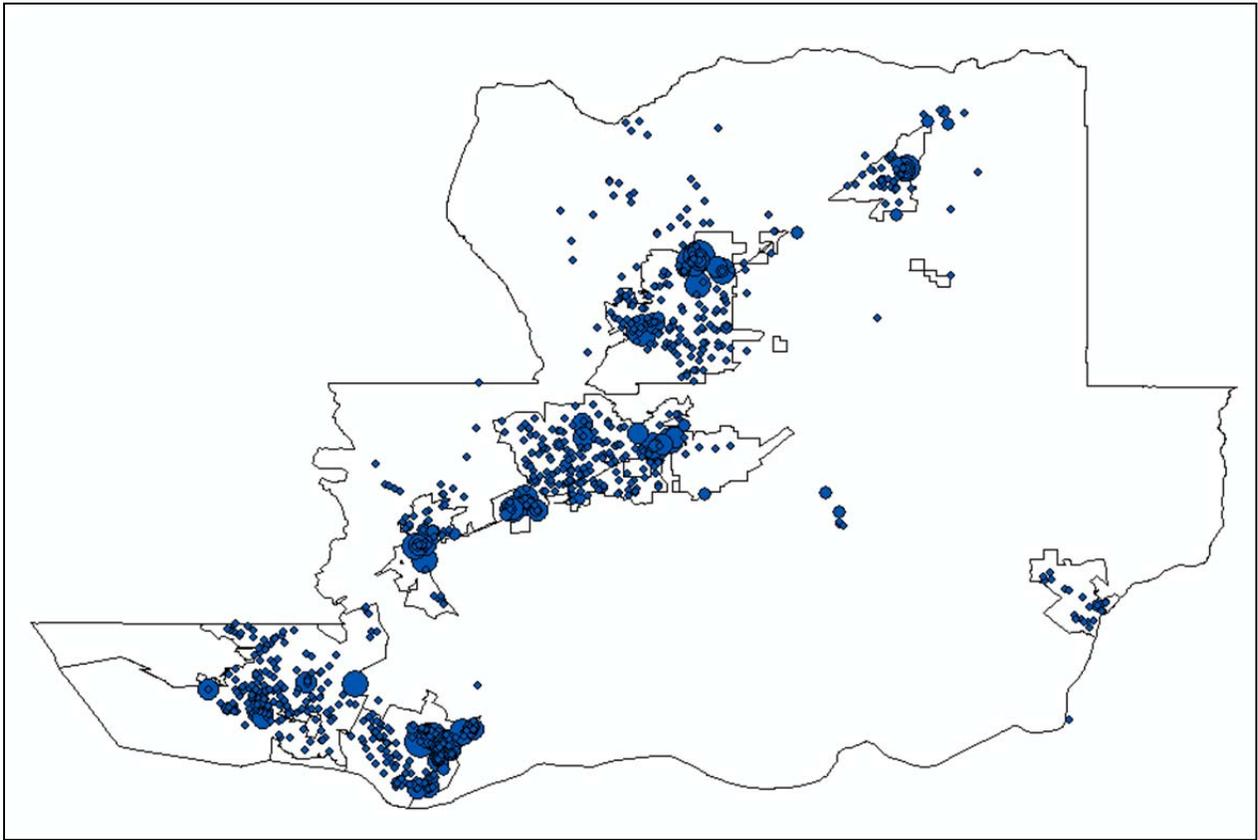


Center for Strategic Economic Research, March 2014

Data Source: National Establishment Time Series database

Note: Circle sizes are based on relative establishment employment size in 2011.

FIGURE 4—ADVANCED MATERIALS CLUSTER GEOGRAPHIC CONCENTRATION



Center for Strategic Economic Research, March 2014

Data Source: National Establishment Time Series database

Note: Circle sizes are based on relative establishment employment size in 2011.

The following sections provide a brief discussion of each of the clusters, including the scope of economic activities and a summary of recommendations from previous studies.

### **Energy Cluster**

The Energy cluster includes 31 separate economic activities, only eight of which were included in the published cluster study. The original eight activities focused on the traditional core components of the energy economy, including electric power and natural gas, utility systems, and petroleum and coal products. The added activities broaden the core components of the energy economy (e.g., commodities production, infrastructure, and transportation), capture the clean energy technology field (e.g., solar, wind, water, and energy efficiency), and address various support sectors (e.g., wholesale and distribution, equipment, and research and development).

In 2012, the Energy cluster supported roughly 5,400 jobs and \$1.9 billion of output in the county. Ten-year growth forecasts show employment increasing by 31 percent and output growing by 53 percent. This cluster has several desirable characteristics for economic development purposes, including nearly three-quarters of all economic activities identified as export-oriented and supporting above-average compensation levels.

The original cluster study noted the region presents favorable conditions for local energy generation (e.g., sun and wind) and benefits from the fact that natural gas and electric transmission grids intersect the county. It is also interesting to note the Department of Defense, a major player in the county, has been one of the biggest institutional supporters of development of advanced biofuels, an area which intersects with the Life Sciences cluster. The original study also laid out several high-level recommendations:

- Capture regional innovation by expanding the county’s role in the Northern California energy economy
- Expand local markets to stimulate demand for energy efficiency and transportation alternatives in the county
- Prepare county residents for growing jobs and careers in the county’s Energy cluster

The Energy cluster makes use of all nonresidential real estate products. Firms focusing on manufacturing, production, and distribution rely on industrial space, while companies investing in innovation and research and development typically demand flex space. Use of office space is not uncommon for back-office and administrative operations, as well as in cases where a company has set up a national or regional headquarters. Even retail is represented in the mix as some clean energy technology firms have set up stores to sell and market their products directly to consumers. While land assets are also becoming increasingly important for utility-scale clean-energy projects, the county has to weigh potential benefit against identified risks to other economic drivers, most notably TAFB and agriculture.

### **Food Chain**

The Food Chain cluster includes 33 economic activities, only two of which have been added to the definition developed in the previous cluster study. The original cluster definition was quite comprehensive, including agriculture, food and beverage production, equipment manufacturing, warehousing, wholesale and retail, and related services. The added activities – cutlery and

handtool manufacturing and management, scientific, and technical consulting services - expand on the equipment manufacturing and related services. The Food Chain cluster supported about 9,500 jobs and \$1.4 billion of output in 2012. Through 2022, the cluster is expected to experience 17-percent employment growth and 63-percent output growth. More than 80 percent of the included activities are considered economic base and almost 60 percent support above-average compensation levels. The cluster also maintains several other desirable characteristics that support economic development targeting.

The 2011 cluster study, which included both Solano and Yolo counties, identified the natural assets for food and agriculture as key foundations for cluster development in this region. Similar to the other identified clusters, Life Sciences is a driver of innovation in the Food Chain cluster where new developments can help improve crop productivity. In addition, this cluster offers additional opportunities to draw visitors and associated spending to the county through agri-tourism. The cluster study outlined the following recommendations to enhance Food Chain cluster growth:

- Establish livestock harvesting and processing facilities
- Direct marketing for food producers and local products
- Take advantage of international markets for local products
- Maintain transportation infrastructure
- Build the regional food chain and a cluster network

The majority of the economic activities included in the Food Chain cluster create demand for industrial space. The agriculture components require land assets, leading to the more dispersed locations of existing cluster firms in the county. Supportive land costs are important to maintain productivity and allow for turnover with continued agricultural uses. Research and development in the cluster generates demand for flex, lab, and office space, while the support services segment typically requires office space. Because the cluster also includes food stores, there is some demand for retail space, as well.

### **Medical & Life Sciences**

The Medical & Life Sciences cluster expands the definition of the Life Sciences cluster identified in the previous cluster study by integrating the medical component (e.g., ambulatory outpatient, and diagnostic), expanding the included medical devices segment (e.g., analytical, electromedical, and electrotherapeutic), and pulling in other supporting activities (e.g., machinery, equipment, and business services). As such, 11 economic activities were added to the 5 included in the original study, for a total of 16 activities in the Medical & Life Sciences cluster. The medical segment was added in recognition of the increasing integration of life sciences discoveries and delivery of medical services. Life sciences is widely cited as radically transforming medicine as improved diagnostics, new scientific breakthroughs, and innovative medical devices are helping usher in precision healthcare defined by personalized care and digital health. Moreover, life sciences have a role in addressing the ongoing challenge of expanding and improving healthcare while cutting costs.

The combined Medical & Life Sciences sector supported almost 11,400 jobs and \$1.8 billion of output in 2012. In the next 10 years, employment in the cluster is forecast to expand by

32 percent, while output is expected to increase by 78 percent. The cluster shows a healthy mix of desirable characteristics, including above-average compensation levels in 69 percent of the 16 included activities. Segments of the life sciences component of this cluster were the only economic activities in the county to see venture capital investment in the past 5 years.

The life sciences component of the cluster contains a few prominent and growing companies, while the medical component benefits from the presence of major health care facilities, the David Grant Medical Center at Travis Air Force Base, and proximate higher education institutions with related educational and research programs (e.g., Touro University, UC Davis, and Stanford). The original Life Sciences cluster study recommended the following actions to foster continued investment in the cluster:

- Ensure the availability of appropriate research and development and manufacturing space
- Ensure infrastructure requirements are met, particularly related to water supply and management
- Consider how local tax policies could support the continued growth of life science companies
- Develop relationships with local research universities and local industry to spur innovation and business start-ups in the county
- Further develop promising training opportunities in the county such as the biotech academy and others

Research and development and innovation are an important component of this cluster and related firms typically demand specialized flex and lab space, which are in short supply in markets east of the core Bay Area. Firms in the manufacturing component of this cluster require a mix of industrial and flex space, often with biological containment and lab requirements. The medical and support services generally demand standard and specialized office space that can accommodate healthcare-related needs. Appropriate information technology infrastructure is now a necessary component of medical office space as the delivery of health care relies more on digital health, big data, and technology.

### **Advanced Materials**

The Advanced Materials cluster includes a wide array of high-tech engineered materials, components, and systems, as well as the commodities, products, processes, and instruments to make and monitor the materials. Examples of products included in the cluster include metals, chemicals, plastics, glass, electronic components, and industrial machinery. The Advanced Materials cluster supports both backward and forward linkages (i.e., uses inputs from other sectors to create intermediate and final products and generates inputs to be used for other intermediate and final products) across several different industries and applications. For instance, engineered additives are used to create plastic products (backward), and electronic components are used in vehicles created in the aerospace and automobile industries (forward). Moreover, advances in the three other recommended clusters rely on new materials to produce high-demand products and develop new technologies. Innovation in the Advanced Materials cluster is reflected in advanced plastics and ceramics, biosynthetics, and nanomaterials. Although the cluster has its roots in the development of basic metals and chemicals, it has shifted into a knowledge-intensive, high-value cluster that relies on technology and scientific breakthroughs to drive market value.

Unlike the other recommended clusters that are fairly globally diversified, the preponderance of major Advanced Materials companies and research-related entities are based in the United States. This creates easier access to key players in the cluster relative to other industries where foreign interactions might be required to generate related economic development opportunities. It is important to note, however, that despite the domestic concentration, these companies generally have a diverse global customer base.

The 52 economic activities included in the Advanced Materials cluster supported more than 8,400 jobs and \$2.2 billion of output in the county in 2012. With a large share of technology-based manufacturing activities, the cluster largely is value-driven and characterized by productivity increases that grow market value but decrease the required employment levels. As such, over the next 10 years, output in the cluster is expected to increase by 52 percent, while employment forecasts show a 5-percent decline. The cluster presents several desirable characteristics, including the fact that nearly every included economic activity is considered economic base and 79 percent support above-average compensation levels.

Not only does the county benefit from the presence of visible companies in the cluster, but proximate institutions like UC Davis and UC Berkeley are active in materials science and chemical engineering research and produce a qualified workforce through related academic programs. The county's transportation infrastructure also is a critical asset for this cluster because of the heavy reliance on forward linkages for cluster competitiveness and success.

Published reports and literature covering the Advanced Materials cluster reveal common challenges to enhancing cluster growth for regions across the country, many of which were cited in interviews with existing cluster companies. Noting these challenges, as the county explores ways in which economic development entities can tailor programs targeting this cluster, it should consider the following items:

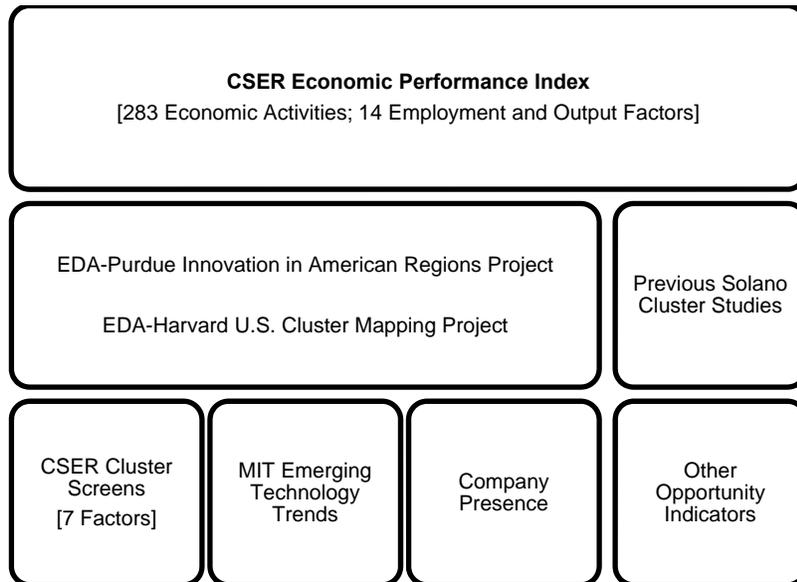
- Develop access to a diverse workforce that spans from scientists and engineers to production and distribution workers
- Attract various forms of equity capital to support commercialization of new technologies
- Assist companies in navigating the complexities of regulations affecting the cluster
- Offer support services for cluster companies to access domestic and international markets
- Create supplier relationships in the local economy and across proximate regions as a means to import substitution
- Remain sensitive to continued investments in transportation infrastructure and the development of effective goods movement strategies

Most firms in the Advanced Materials cluster require industrial space because of the preponderance of heavy manufacturing and related wholesale and distribution activities. Activities working with chemicals and electronics often also require clean room and lab space in the industrial facilities. Some of the supporting services also demand office space.

## Technical Approach

CSER’s process for identifying viable clusters in the county economy included several layers with a mix of quantitative and qualitative analysis as depicted in the diagram below.

### CSER CLUSTER SELECTION PROCESS



The primary driver of the cluster selection process was based on CSER’s Economic Performance Index (EPI). The EPI approach measured 283 detailed economic activities (4-digit NAICS) in the county across 14 economic factors that measure historical and projected performance:

1. Share of total employment, 2012
2. Shift in share of total employment, 2002–2012
3. Employment specialization (regional share of total employment/statewide share of total employment), 2012
4. Change in employment specialization, 2002–2012
5. Employment growth rate, 2002–2012
6. Projected employment growth rate, 2012–2022
7. Share of total output (market value of goods and services), 2012
8. Shift in share of total output, 2002–2012
9. Output specialization, 2012
10. Change in output specialization, 2002–2012

11. Output growth rate, 2002–2012
12. Projected output growth rate, 2012–2022
13. Productivity (output/employee), 2012
14. Change in productivity, 2002–2012

Activities in the top two quartiles of economic performance were examined for potential cluster groupings based on similarity of activities and professional experience. The grouping of activities into clusters also was guided by the 2009 and 2011 county cluster studies, as well as data and definitions from other published cluster work at the national level, including the Cluster Mapping Project and Innovation in American Regions Project, both of which were developed through an Economic Development Administration partnership with Purdue and Harvard Universities. At this point in the process, applicable activities in the two lower quartiles of the EPI were pulled into the cluster groupings based on common definitions. It is important to note certain economic activities are included in more than one cluster (i.e., the definitions are not mutually exclusive) and some cluster definitions include activities that are not present in the county economy. To clarify, a cluster grouping represents the entire value chain and beyond, anchored in concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions.<sup>10</sup>

Seven other factors also were analyzed in each defined cluster to demonstrate further opportunities and benefits, as well as to help screen for viable activities:

1. Economic Base Activities—illustrates if the cluster activities can be considered part of the county’s economic base (export-oriented, net wealth generating) according to the related analysis completed as part of the previous “Economic and Demographic Profile” memorandum.
2. Gazelle Company Activities—shows whether there are any companies with primary business activities aligned with the cluster activities that have grown by 20 percent or more within the last 5 years. This analysis is based on data from the National Establishment Time Series (NETS) database, which provides business records of all establishments in the county between 1990 and 2011, according to Dunn & Bradstreet information.
3. Travis Air Force Base California Demand Activities—reveals the cluster activities aligned with the 40 goods and services categories with the highest dollar volume demand from Travis Air Force Base that historically has been met by companies in California (both in and outside the county). Analysis for this factor used a subset of contract obligations from 2008 to 2013, provided directly by the 60<sup>th</sup> Contracting Squadron.
4. Above-Average Compensation Activities—reflects those cluster activities that support average compensation (salaries/wages plus benefits) per employee levels above the all-industry average in the county. Compensation data was pulled from the 2011 county IMPLAN model.

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<sup>10</sup> To learn more about the cluster concept, visit the following Web sites:

Harvard Institute for Strategy and Competitiveness: <http://www.isc.hbs.edu/>

Innovation in American Regions: <http://www.statsamerica.org/innovation/index.html>

5. Commodity Imports—shows sectors from which the county imports relatively high values of goods and services and have an existing presence in the regional economy. Commodity trade data from the 2011 county IMPLAN model were used to determine the sectors with high import activity and screened against those sectors in the economy with higher than median employment based on IMPLAN data. The top 40 import sectors that met the employment screen were selected and compared to the list of cluster activities.
6. Regional Linkage Activities—reflects sectors that use goods and services from the largest sectors in the county as inputs (forward linkages) or acts as suppliers of goods and services to the largest sectors in the county (backward linkages). This factor relied on regional use data for forward linkages and industry-by-industry information from the social accounts matrix for backward linkages, both from the 2011 county IMPLAN model. The top two forward linkage and top two backward linkage sectors were identified based on value of goods and services for each of the 10 largest sectors in the county based on employment. The cluster activities then were matched to this list of 40 regional linkage sectors.
7. Occupation Match—determines specific sectors that heavily use occupations currently held by county residents. The top 20 detailed occupations in the county were identified through U.S. Census Bureau 2009–2011 American Community Survey data. Then the two sectors with the greatest level of employment in each of these occupations were selected based on the California Employment Development Department’s statewide industry-occupation matrix (2008–2018 update). The cluster activities were compared to the resulting 40 sectors with occupational matches.

In addition to the seven cluster screens, CSER considered a handful of other indicators that point to viability of specific clusters. First, alignment with emerging technologies was assessed based primarily on MIT Technology Review’s annual emerging technologies trends publication for the past 5 years and secondarily on published work from the Envisioning Technology Research Foundation. Second, the presence of visible or major county companies in the identified clusters was considered as another positive cluster indicator. Finally, CSER evaluated other opportunity indicators such as nonemployer dynamics, venture capital investment, and patent generation in the clusters.

The four cluster definitions and a summary of the seven screens discussed above are provided in the tables that follow.

## VIABLE INDUSTRIES AND CLUSTERS

### ENERGY CLUSTER DEFINITION AND SCREENS

NAICS	Sector Description	Economic Base	Gazelle Company	TAFB CA Demand	Above Avg. Comp.	Commod. Imports	Regional Linkages	Occ. Match
<u>Energy</u>								
2111	Oil and Gas Extraction	X			X			
2121	Coal Mining	X						
2122	Metal Ore Mining	X						
2131	Support Activities for Mining	X			X			
2211	Electric Power Generation, Transmission and Distribution			X	X	X		
2212	Natural Gas Distribution				X	X		
2213	Water, Sewage and Other Systems			X	X			
2371	Utility System Construction			X	X		X	
2379	Other Heavy and Civil Engineering Construction			X	X		X	
3241	Petroleum and Coal Products Mfg	X			X	X	X	
3251	Basic Chemical Mfg	X			X			
3324	Boiler, Tank, and Shipping Container Mfg	X			X			
3331	Agriculture, Construction, and Mining Machinery Mfg	X			X			
3334	Ventilation, Heating, Air-Conditioning, and Commercial Refrigeration Equip Mfg	X			X			
3336	Engine, Turbine, and Power Transmission Equip Mfg	X			X			
3344	Semiconductor and Other Electronic Component Mfg	X			X			
3345	Navigational, Measuring, Electromedical, and Control Instruments Mfg	X		X	X			
3351	Electric Lighting Equip Mfg	X			X			
3353	Electrical Equip Mfg	X			X			
3359	Other Electrical Equip and Component Mfg	X			X			
3363	Motor Vehicle Parts Mfg	X						
4235	Metal and Mineral (except Petroleum) Merchant Whslrs	X			X	X	X	
4236	Electrical and Electronic Goods Merchant Whslrs	X		X	X	X	X	
4237	Hardware, and Plumbing and Heating Equip and Supplies Merchant Whslrs	X			X	X	X	
4247	Petroleum and Petroleum Products Merchant Whslrs	X			X	X	X	
4860	Pipeline Transportation	X			X			
5324	Commercial and Industrial Machinery and Equip Rental and Leasing	X						
5331	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	X						
5413	Architectural, Engineering, and Related Svcs		X	X		X		
5416	Management, Scientific, and Technical Consulting Svcs		X	X		X		
5417	Scientific Research and Development Svcs					X		

Center for Strategic Economic Research, March 2013

Data Sources: Moody's Analytics, National Establishment Time Series database,

U.S. Census Bureau, Travis Air Force Base, and IMPLAN

**VIABLE INDUSTRIES AND CLUSTERS**

**FOOD CHAIN CLUSTER DEFINITION AND SCREENS**

NAICS	Sector Description	Economic Base	Gazelle Company	TAFB CA Demand	Above Avg. Comp.	Commod. Imports	Regional Linkages	Occ. Match
<b>Food Chain</b>								
11	Agriculture, Forestry, Fishing and Hunting	X						
2213	Water, Sew age and Other Systems			X	X			
2371	Utility System Construction			X	X		X	
3111	Animal Food Mfg	X						
3112	Grain and Oilseed Milling	X			X			
3113	Sugar and Confectionery Product Mfg	X			X			
3114	Fruit and Vegetable Preserving and Specialty Food Mfg	X				X		
3115	Dairy Product Mfg	X			X			
3116	Animal Slaughtering and Processing	X				X		
3117	Seafood Product Preparation and Packaging	X						
3118	Bakeries and Tortilla Mfg	X						
3119	Other Food Mfg	X						
3121	Beverage Mfg	X			X			
3219	Other Wood Product Mfg	X						
3222	Converted Paper Product Mfg	X			X	X		
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Mfg	X			X			
3261	Plastics Product Mfg	X			X	X		
3272	Glass and Glass Product Mfg	X			X			
3321	Forging and Stamping	X						
3322	Cutlery and Handtool Mfg	X						
3324	Boiler, Tank, and Shipping Container Mfg	X			X			
3331	Agriculture, Construction, and Mining Machinery Mfg	X			X			
3332	Industrial Machinery Mfg	X			X			
3339	Other General Purpose Machinery Mfg	X			X			
4238	Machinery, Equip, and Supplies Merchant Whlsrs	X	X		X	X	X	
4244	Grocery and Related Product Merchant Whlsrs	X			X	X	X	X
4245	Farm Product Raw Material Merchant Whlsrs	X			X	X	X	
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Whlsrs	X			X	X	X	
4249	Miscellaneous Nondurable Goods Merchant Whlsrs	X			X	X	X	
4452	Specialty Food Stores							
4931	Warehousing and Storage						X	
5416	Management, Scientific, and Technical Consulting Svcs		X	X		X		
5419	Other Professional, Scientific, and Technical Svcs							

Center for Strategic Economic Research, March 2013

Data Sources: Moody's Analytics, National Establishment Time Series database,

U.S. Census Bureau, Travis Air Force Base, and IMPLAN

## VIABLE INDUSTRIES AND CLUSTERS

### MEDICAL AND LIFE SCIENCES DEFINITION AND SCREENS

NAICS	Sector Description	Economic Base	Gazelle Company	TAFB CA Demand	Above Avg. Comp.	Commod. Imports	Regional Linkages	Occ. Match
<u>Medical &amp; Life Sciences</u>								
3254	Pharmaceutical and Medicine Mfg	X			X	X	X	
3332	Industrial Machinery Mfg	X			X			
3333	Commercial and Service Industry Machinery Mfg	X			X			
3345	Navigational, Measuring, Electromedical, and Control Instruments Mfg	X		X	X			
3391	Medical Equip and Supplies Mfg	X		X	X			X
4234	Professional and Commercial Equip and Supplies Merchant Whlsrs	X			X	X	X	
4461	Health and Personal Care Stores							
5413	Architectural, Engineering, and Related Svcs		X	X		X		
5417	Scientific Research and Development Svcs					X		
5621	Waste Collection				X		X	
5622	Waste Treatment and Disposal				X		X	
6214	Outpatient Care Centers				X		X	X
6215	Medical and Diagnostic Laboratories			X	X		X	
6216	Home Health Care Svcs					X		
6219	Other Ambulatory Health Care Svcs			X	X		X	
8112	Electronic and Precision Equip Repair and Maintenance			X				

Center for Strategic Economic Research, March 2013

Data Sources: Moody's Analytics, National Establishment Time Series database,

U.S. Census Bureau, Travis Air Force Base, and IMPLAN

# VIABLE INDUSTRIES AND CLUSTERS

## ADVANCED MATERIALS CLUSTER DEFINITION AND SCREENS

NAICS	Sector Description	Economic Base	Gazelle Company	TAFB CA Demand	Above Avg. Comp.	Commod. Imports	Regional Linkages	Occ. Match
<b>Advanced Materials</b>								
2122	Metal Ore Mining	X						
2123	Nonmetallic Mineral Mining and Quarrying	X			X			
3222	Converted Paper Product Mfg	X			X	X		
3241	Petroleum and Coal Products Mfg	X			X	X	X	
3251	Basic Chemical Mfg	X			X			
3252	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Mfg	X			X			
3253	Pesticide, Fertilizer, and Other Agricultural Chemical Mfg	X			X			
3254	Pharmaceutical and Medicine Mfg	X			X	X	X	
3255	Paint, Coating, and Adhesive Mfg	X			X			
3256	Soap, Cleaning Compound, and Toilet Preparation Mfg	X			X	X		
3259	Other Chemical Product and Preparation Mfg	X			X			
3261	Plastics Product Mfg	X			X	X		
3262	Rubber Product Mfg	X			X			
3271	Clay Product and Refractory Mfg	X						
3272	Glass and Glass Product Mfg	X			X			
3273	Cement and Concrete Product Mfg	X			X			
3274	Lime and Gypsum Product Mfg	X			X			
3279	Other Nonmetallic Mineral Product Mfg	X			X			
3311	Iron and Steel Mills and Ferroalloy Mfg	X			X			
3312	Steel Product Mfg from Purchased Steel	X			X			
3313	Alumina and Aluminum Production and Processing	X			X			
3314	Nonferrous Metal (except Aluminum) Production and Processing	X			X			
3315	Foundries	X						
3321	Forging and Stamping	X						
3322	Cutlery and Handtool Mfg	X						
3323	Architectural and Structural Metals Mfg	X		X	X			
3324	Boiler, Tank, and Shipping Container Mfg	X			X			
3325	Hardware Mfg	X						
3326	Spring and Wire Product Mfg	X			X			
3327	Machine Shops, Turned Product, and Screw, Nut, and Bolt Mfg	X			X			
3328	Coating, Engraving, Heat Treating, and Allied Activities	X			X			
3329	Other Fabricated Metal Product Mfg	X		X	X			
3332	Industrial Machinery Mfg	X			X			
3333	Commercial and Service Industry Machinery Mfg	X			X			
3335	Metalworking Machinery Mfg	X			X			
3339	Other General Purpose Machinery Mfg	X			X			
3341	Computer and Peripheral Equip Mfg	X						
3342	Communications Equip Mfg	X		X	X			
3344	Semiconductor and Other Electronic Component Mfg	X			X			
3345	Navigational, Measuring, Electromedical, and Control Instruments Mfg	X		X	X			
3351	Electric Lighting Equip Mfg	X			X			
3353	Electrical Equip Mfg	X			X			
3359	Other Electrical Equip and Component Mfg	X			X			
3363	Motor Vehicle Parts Mfg	X						
3364	Aerospace Product and Parts Mfg	X			X			
3391	Medical Equip and Supplies Mfg	X		X	X			
3399	Other Miscellaneous Mfg	X						
4235	Metal and Mineral (except Petroleum) Merchant Whslrs	X			X	X	X	
4246	Chemical and Allied Products Merchant Whslrs	X			X	X	X	
4247	Petroleum and Petroleum Products Merchant Whslrs	X			X	X	X	
5413	Architectural, Engineering, and Related Svcs		X	X		X		
5417	Scientific Research and Development Svcs					X		

Center for Strategic Economic Research, March 2013

Data Sources: Moody's Analytics, National Establishment Time Series database,

U.S. Census Bureau, Travis Air Force Base, and IMPLAN

It is important to note that there were a handful of concepts mentioned in various MSF stakeholder engagement efforts that did not rank in the top two quartiles of the EPI (or fully align with the cluster screen notions) and were, therefore, not included as recommendations for targeted countywide business attraction and marketing and business retention and expansion programs. This includes distinct activities such as aerospace and defense, and tourism.

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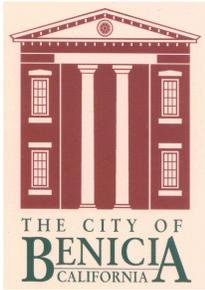


## ADDENDUM 1: Draft Report Comments

*Includes the following comment letters:*

1. August 4, 2014, Recommendations for the Moving Solano Forward Draft Report from the City of Benicia
2. August 27, 2014, Comments from the City of Vacaville
3. September 18, 2014, Comments from the Solano County Economic Development Corporation Board

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**OFFICE OF ECONOMIC DEVELOPMENT  
MEMORANDUM**

*beniciabusiness.com / visitbenicia.org*

**Date:** August 4, 2014  
**To:** Amy Lapin, MSF Project Manager  
**From:** Mario Giuliani, Economic Development Manager  
**Re:** **Recommendations for the Moving Solano Forward Draft Report**

Per our conversation on Friday, August 1<sup>st</sup> and again on August 4<sup>th</sup>, I have memorialized the City of Benicia’s comments for the Moving Solano Forward draft report. I appreciated your willingness to note our comments during your presentations to the Board of Supervisors, the 4-C’s meeting and the Solano EDC breakfast.

It’s our understanding that following your presentations you will incorporate our suggestions into the final version of the report. As was discussed during our telephone conference call the impetus of Benicia’s comments is to draw attention to existing industrial parks as well as encouraging elements of the “next economy”.

To frame our suggestions I have called-out the report’s vision and objective statements:

**Vision**  
The Solano County region will work collaboratively to create a diverse and robust economy focused on city-driven growth, desired industry cluster growth in targeted locations, viable agricultural uses, and strengthened recreational assets that expand economic opportunities for employers and residents.

**Objectives**  
Identify and prioritize strategic public investment to induce private-sector investments to diversify and grow the county’s economy by:

- Identifying key issues and opportunities
- Aligning interests and resources; and
- Pursuing high-priority initiatives.

Below are five suggestion areas where we feel our comments can be incorporated in the final report. The blue bullet points are our specific suggestions and recommendations which are supported by the key findings from the report itself, highlighted in the shaded boxes.

1. **Goal 1, Strategy 1-1** appears to focus only on vacant developable land and the I-80 Corridor although there is much reference throughout the report to existing parks, existing built space, retrofitting industrial buildings and parks, other corridors and the composition of the Solano businesses as noted below in several Key Findings of the report.

This report is an opportunity to set the stage for the “next economy”. These connecting points of the next economy and future community design, what is desired by workers and businesses and is the hallmark of thriving communities in this economy, should be brought forth and highlighted with as much importance as vacant land. As it relates to the “next economy”, recommend considering changes at least in the executive summary:

- Adding/replacing paragraphs in the executive summary that speak to land availability with paragraphs connecting demographic trends, adding value to existing footprints of development and creating more compact communities for proximity of work, residency and essential “amenities” of education, culture and community.

As it relates to near-term economic prosperity existing parks are anchors, providing substantial employment centers, appropriately zoned areas, existing infrastructure (some with rail) and should be considered “shovel-ready” and Tier 1. Recommend considering in the implementation plan:

- Add specific strategies for existing built parks and space in all cities, such as, expanding parks, infrastructure improvements – expand beyond the vacant land of I-80 in Goal 1 and in Goal 2 to align with the vision of **focused on city-driven growth, desired industry cluster growth in targeted locations**.
- Revise Goal 1, Strategy 1.1a, bullet point 6 to be a strategy on its own, i.e. Strategy 1.1.2 review opportunities and function of other major transportation corridors and built space in Solano County.
- Adding a priority to continue to make existing parks fully functionally economic engines, these are the low hanging fruit for driving economic diversification. Could be a bullet point of Strategy 1.1.2.
- Include existing parks for public investment in infrastructure improvements, Strategy 1.3a, 1.3c.
- The current tight market for industrial space, particularly industrial space, in the Oakland-East Bay market will be a short-term opportunity for Vallejo and Benicia and should be a priority in the short-term marketing to fill vacant facilities, Strategy 1.2b

**Key Findings related to Goal and Strategy Implementation – Goal 1**

- Technical Underpinnings, page ES-4, one of the county’s competitive advantages is the substantial “shovel-ready” land assets as well as redevelopment and reuse of vacant, and available spaced located throughout the county.
- Industry panel, page 6, input “proximity to rail, the deep water port and major highways connecting to the Bay Area”.
- Built Industrial Inventory, Real Estate Analysis Memorandum I-14, “39.0 million square feet of industrial, incorporated and unincorporated areas...”
- Existing Major businesses and Industrial Parks, Real Estate Analysis Memorandum I-20, “larger business and industrial parks are a key part of the country’s ability to attract and retain large firms to manufacturer production locally and reduce imports...drive employment growth”
- Key Outcomes, page ES-6, “retrofitting existing business and industrial parks with key amenities to improve the capture of desired tenants .
- Economic Profile, page 12, “the county primarily is composed of small businesses with fewer than 20 employees, indicating the importance of supporting and growing these types of businesses.

2. **Goal 1, Enhance Countywide Development Capacity, Strategy 1.4** “Obtain funding sources and financing tools to fund infrastructure (transportation, utilities, broadband). This strategy appears to be the only strategy to address the report’s, page 12, statement “The county should focus on several actions to elevate the county’s position and fuel growth in the economy 1) continue to improve the county’s transportation infrastructure and 2) invest in broadband connectivity.

- Recommend considering this as a higher priority starting with existing parks and then moving to vacant land.

3. **Countywide target clusters**, page 17, addresses four clusters, three of which relate to manufacturing. Given Key Findings relating to the manufacturing recommend considering:

- Goal 1, Strategy 1.2 should also include an inventory of significant buildings and existing parks tied to manufacturing opportunities.
- Add to the targeted clusters, the logistics and warehousing/goods movement sector, or address the logistics and warehousing as a sector within the targets. Strategy 1.2a
- Acknowledge the Goods Movement Collaborative Plan, Alameda County Transportation Commission and Solano Transportation Authority Technical Advisory Committee, work being conducted to develop a collaborative plan around goods movement, 35% of the businesses in Solano County are goods movement dependent. This initiative is a critical piece for Solano County economic diversification as it relates to I 80, SR 12, underutilized rail lines, ports. Acknowledge in Strategy 1.1.2 and Strategy 1.3.

**Key Findings related to Goal and Strategy Implementation Goal 1 & 2**

- Stakeholder themes, page 5, “connect to resurgence in manufacturing”....local manufacturing development could feature prominently in the county’s future growth...
- Focused program to drive economic development, page 9, “manufacturing is the largest base sector....highlights the need to maintain and grow this sector....”
- Existing Major businesses and Industrial Parks, Real Estate Analysis Memorandum I-20, “larger business and industrial parks are a key part of the country’s ability to attract and retain large firms to manufacturer production locally and reduce imports...drive employment growth”
- Industry trends, Real Estate Analysis Memorandum I-25, “focus on niche submarket segments of the wine industry and large-scale manufacturing”

4. The Vision notes **focused on city-driven growth**, desired industry cluster growth in targeted locations, this should be reflected in **Goal 2**, and the implementing agencies work with the Solano EDC on a marketing campaign that supports the efforts of each City.

5. **Goal 2, Strategy 2.1 Focus on regional business retention and expansion as well as business attraction and marketing**. We would recommend Action 2.1a, bullet point one, preparing a countywide CEDS a first year priority action. The EDC's Board of Directors could be the CEDS Committee with participation from each city to meet EDA guidelines. Also recommend incorporating Goal 2, Strategy 2.3 *Develop a messaging strategy for economic development purposes* into the CEDS development to maximize efforts. The EDS could be completed within five-six months to the benefit of all the jurisdictions.



ESTABLISHED 1850

# CITY OF VACAVILLE

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Mayor

DILENNA HARRIS  
Councilmember

MITCH MASHBURN  
Vice Mayor

CURTIS HUNT  
Councilmember

RON ROWLETT  
Councilmember

Office of the Mayor

August 27, 2014



# Received

SEP 05 2014

## Solano County Board of Supervisors

Chairperson Linda Seifert and Members of the Board  
Board of Supervisors  
County of Solano  
675 Texas Street  
Fairfield, CA 94533

**SUBJECT: COMMENTS ON MOVING SOLANO FORWARD ECONOMIC DIVERSIFICATION REPORT**

Dear Chair Seifert and Members of the Board of Supervisors:

The City of Vacaville has been an active participant in the process of developing the Moving SOLANO Forward Economic Diversification Report (MSF Report). As such, the City has helped to shape the three main goals and the strategies suggested in the MSF Report.

The Mayor and City Council wish to commend and laud the efforts of the County to support the economic strength of our County and feel that by working together as a team we can achieve the highest quality of life for our residents and the business community. We thank the efforts of the Board Members and the County staff who worked tirelessly to complete the report.

The City of Vacaville would like to support moving forward with the conceptual goals and strategies. However, we feel additional time and effort is needed to ensure our success in moving forward, as follows:

1. **Timeline and Funding:** Each strategy has a designation of when it is to be completed with an overall goal of completing all of the strategies within five years. There is no mention of funding for staff to get the projects done. Absent funding, formal action and concurrence by all of the cities should be solicited. This appears to be a gap in the implementation phase that needs to be addressed.
2. **Implementation:** To address the above comment, a preliminary phase work item should include a more in-depth implementation plan. This plan should then be required to be reviewed and approved by each lead and supporting agency so that there is commitment to completing the work. Further, Federal Grant funding to develop this plan should be pursued.
3. **Partners:** Some of the items affect the School Districts, who have not been participating in the MSF process. For this reason, the above recommended plan process needs to include these agencies.

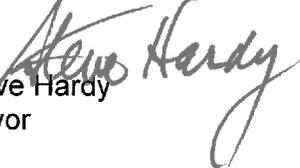
The City of Vacaville supports the concept of countywide collaboration on economic development. However, we also recognize that each city and the County's resources are different and are still reeling from the loss of Redevelopment and the slow economic recovery. For these reasons, we are concerned about funding and resources currently available to complete the work projects.

*Board/Aides  
CAO (B. Casallo, N. Houston)  
CC (D. Bunting)*

Finally, the Solano Economic Development Corporation (Solano EDC) currently functions as a countywide coordinator for economic development. The City of Vacaville has been an active member of this organization since its inception. We encourage and support using the infrastructure for economic development that the Solano EDC currently provides. We agree that using the Solano EDC as a lead agency on several of the strategies makes sense as it will ensure a more efficient implementation process.

Thank you for the opportunity to participate in and comment on the Moving SOLANO Forward Economic Diversification Study.

Sincerely,

  
Steve Hardy  
Mayor

c: Vacaville City Council Members  
Sandy Person, Solano EDC



September 18, 2014

Ms. Amy Lapin  
Economic & Planning Systems, Inc.  
2295 Gateway Oaks Drive, Suite 250  
Sacramento, CA 95833

Dear Amy:

As you know, Solano Economic Development Corporation has been actively engaged in the Moving Solano Forward project and we applaud the efforts and achievements created in the Economic Diversification Study Project report.

With Solano County's history of economic development collaboration, the commitment of countless individuals and organizations made the goal of creating a Moving Solano Forward undertaking achievable. And now, the development of a diversification plan, which not only specifies specific strategies, but also assigns lead agencies to each task, will provide the road map to guide us into the future.

As a member of the Solano Forward Project team and the lead agency for the economic development tasks specified in the Economic Diversification Study Project, EDC will continue its commitment to attract innovative and growth industries which will achieve three primary goals: 1) job generation and increased employment opportunities for our residents; 2) increased tax revenues for our cities and county; and 3) expansion of our economic base by increased diversification in the private sector.

The strategies put forward in Goal #2 of the Diversification Study Project are all vital parts of the overall vision to strengthen economic and workforce development efforts in Solano. We value the opportunity to provide leadership as the lead agency but also recognize the restraints posed by our current limited resources. Building resource capacity, prioritizing the strategies that have the highest value and possibility for completion will ensure our shared economic prosperity.

Moving Solano Forward will succeed with an ongoing effort of collaboration and commitment by all the diverse "players" who are stake holders in our economic future. The staff of Solano EDC and its Board of Directors stand ready to move ahead on the strategies and initiatives of Moving Solano Forward. Our "collaborative spirit" is the crucial component of our economic development strategy!

Sincerely,

Sandy Person  
President

Sandy Person  
President  
sandy@solanoedc.org

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