



Industry, Employment, and Skills in a Time of Transition:

An Employment Forecast for Santa Barbara County

Conducted for the Santa Barbara County
Workforce Investment Board

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PARTNERSHIP





EXECUTIVE SUMMARY

INTRODUCTION

In March 2011, the Santa Barbara County Workforce Investment Board partnered with BW Research Partnership, Inc. (BW Research) to revisit a regional workforce assessment of the county and its economy with a particular emphasis on understanding the county's key industry clusters. The research is meant to provide an overview of the county's workforce, the impact the changing economy could have on the region's demand for workers, and how the Workforce Investment Board (WIB) can better support the region's employers and job-seekers as well as have a positive impact on developing the county's human capital for the jobs of today and tomorrow.

The primary research questions driving the study included:

- What are Santa Barbara County's key industry clusters, how might they change in the future, and what are their needs for a trained workforce?
- What challenges are employers facing, both in the economy as a whole and specifically in different industries?
- What occupations and occupational skill-sets are needed by employers and where should skill development programs be focused?
- What opportunities exist for the WIB to support and develop workforce and economic development strategies?

Data compiled for this report were drawn from external sources, including information from California's Employment Development Department, the Bureau of Labor Statistics, Economic Modeling Specialists, Inc. (EMSI), the U.S. Census' American Community Survey, and several industry and regional studies focused on relevant industries and/or Santa Barbara County. Primary research was also conducted including a quantitative survey of 317 Santa Barbara County employers.

Study Authorship

Josh Williams with Jaime Barraha from BW Research Partnership authored the report. Project oversight was provided by Raymond L. McDonald, Santa Barbara Workforce Investment Board's Executive Director.

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KEY FINDINGS

Santa Barbara County's economy is looking to rebuild after several years of historically high unemployment. The great recession that hit the United States in 2008 not only increased overall unemployment; it had a significant structural impact on the industries and technologies that employ Santa Barbara's workers and job-seekers. This report is meant to provide a current assessment of Santa Barbara's key industry clusters and how they will continue to impact the demand for workers today and into the future. The research was also focused on providing some new perspectives on how to view the county's workforce and different ideas to consider moving it forward.



Why Industry Clusters Matter

What are Industry Clusters? Michael Porter, a Harvard economist and pioneer of industry cluster research, defined the cluster as a geographic concentration of inter-connected companies and institutions working in a common industry. This definition has been expanded over the years to account for employers in shared technologies, supply chains, services, and/or customers whose competition and/or collaboration create opportunities for new business creation, increased regional wealth, and new employment.

An emphasis on industry clusters in a given region has several advantages; they allow us to move beyond the general industry assessment to identify regional economic drivers, shared resources that are needed (including human resources), and a better understanding of the markets in which employers compete and cooperate. Analyses of industry clusters are valuable tools to understanding how the regional economy is segmented in terms of differing growth expectations, workforce needs, and infrastructure requirements.



For Santa Barbara's Workforce Investment Board there are three key reasons for focusing on industry clusters:

1. **An emphasis on industry clusters allows you to more effectively engage with employers** who are focused on their industry, related technologies, and customers, but who may be less focused on overall regional economic trends. An emphasis on industry clusters allows you to better understand the priorities and workforce needs of the employers that are driving growth in the county's economy.
2. A deeper understanding of the relevant industry clusters in Santa Barbara provides valuable information for **job-seekers and current workers who are looking to develop new skills and find career pathways** that allow them to stay productive and in demand with regional employers. One of the key challenges for job-seekers working to stay relevant and useful for potential employers is to get them to understand how they can be valuable for employers. Education on the key industry clusters in Santa Barbara provides job-seekers a valuable foundation for understanding what skills and abilities they should work towards and what employment opportunities connect to stronger pathways and greater career fulfillment.
3. The industry cluster employers that are the focus of this study **employ two out of every five jobs in Santa Barbara and accounted for two out of every three new jobs in the county between 2010 and 2011**. The strong employment gains are expected to continue in 2012, where Santa Barbara's industry cluster employers expect to increase employment by six percent in the coming year. Industry clusters matter; they are where Santa Barbara's new jobs can be found today and into the future.

Santa Barbara's Industry Clusters

Based on secondary research conducted during the early stages of this project and the research done in 2009 (including an examination of future job growth, current and expected impact on the county's economy, wage data, and workforce needs), the following industry clusters were chosen as the focus of this study.

- Energy and the Environment consists of all industries involved in the production and sale of energy and industries that work to improve environmental sustainability and meet all environmental regulations. This industry cluster includes environmental consulting services and power generation, transmission, and distribution. From a workforce perspective, these two somewhat disparate industries have significant crossover and shared demand for skills and areas of expertise.
- Healthcare is the diagnosis, treatment, and prevention of disease, illness, injury, and other physical and mental impairments. Healthcare is delivered by a wide range of practitioners in medicine, chiropractic, dentistry, nursing, pharmacy, etc. This industry cluster includes ambulatory care services, hospitals, and residential care facilities.



- Agriculture, Tourism, & Wineries is one of the larger industry clusters in the county and the industry cluster is a mix of food production and service industries that draw tourists into the county and export products outside of Santa Barbara. The cluster includes wineries, accommodations, amusement, gambling, and recreation industries. Agriculture, Tourism, and Wineries is a particularly important combined industry to the local economy because it is a large scale employer and it brings money into the region through tourism and through the export of goods.
- Technology and Innovation is a diverse group of industries that focus on the development and production of new technologies and products. This cluster is focused on commercializing the best ideas and research coming out of the University of California Santa Barbara, other research institutions, and emerging companies within the county. Some of the sectors in this cluster include pharmaceuticals and medical devices, software publishers, and computer and electronic product manufacturing.
- Business Support Services is a particularly important cluster for Santa Barbara given the large number of small and medium-sized businesses that are born in the county. The Business Support Services cluster in Santa Barbara County is comprised of 10 distinct subsectors, including graphic design services, accounting, advertising, and employment services.
- Building & Design involves the design and building of residential and non-residential buildings and the interior design of buildings. This industry is actively involved in energy efficiency, building retrofits, and the use of sustainable building materials.

For a more comprehensive definition and examination of Santa Barbara's industry clusters, please see page 9 in the full study report.

Key Considerations for the Santa Barbara Workforce Investment Board

Understanding employers' needs and their expectations for the future is a critical part of developing Santa Barbara's workforce. Employers in the county were surveyed to better understand the challenges and obstacles they are facing in the current economic environment but just as importantly, to better understand the skills and workforce requirements they may need to move forward. Some of the key findings from the survey included:

- Three out of every five Santa Barbara employers are having at least some difficulty finding qualified applicants with **adequate industry experience**. Approximately the same percentage of employers indicated they were having at least some difficulty recruiting non-entry level employees.
- Santa Barbara's employers that are working with new emerging technologies are most likely to be focused on **smart grid and energy efficiency, emerging information technologies, solar and/or photovoltaic technologies, or agricultural research**.



- **Technical skills specific to the position** and **communication skills** were the two general skills most cited by Santa Barbara employers as deficient among their entry-level or mid-level recent hires.
- Approximately one in three Santa Barbara employers has heard of the Santa Barbara County Workforce Investment Board or one of the Workforce Resource Centers.

The employer survey was completed in June of 2011 and in general, employers were relatively optimistic that they would increase employment – particularly over the next two years. About a third thought they would increase employment in the next 12 months and just over a third thought they would increase employment over the next two years.

For a more detailed examination of the survey results, please refer to Appendix D in the full study report.

Not all Occupations are Equal

The unemployment rate, number of jobs created, number of people employed, and number of people unemployed, all these general statistics have some value when you are looking at Santa Barbara's overall economy, but they also hide some critical information as well, starting with the **reality that not all jobs are equal**. A part-time job that pays minimum-wage with limited training and on-the-job skill development is considerably less valuable than a high-paying, full-time position with full benefits that continually develops and trains an individual for increasing levels of responsibility.

A recent study by David Autor¹ revealed the changes in the nation's occupational profile. Autor provided an in-depth examination of the quality and quantity of the jobs that employers have demanded over the last 30 years. In his analysis, Autor developed an occupational segmentation that BW Research has also used in regional occupational analyses. This occupational segmentation technique delineates all occupations into one of three tiers. The occupational tiers are broadly defined as follows:

Tier 1 Occupations include managers (Chief Executives, Financial Managers, and Sales Managers), professional positions (Lawyers, Accountants, and Physicians) and highly-skilled technical occupations, such as scientists, computer programmers, and engineers. These occupations are typically the highest-paying, highest-skilled occupations in the economy. In 2009, the average wage for Tier 1 occupations in California was \$43.84 an hour or approximately \$91,200 a year (assuming a 40 hour work week for the entire year).

Tier 2 Occupations include sales positions (Sales Representatives), teachers, and librarians, office and administrative positions (Accounting Clerks and Secretaries), and manufacturing, operations, and production positions (Assemblers, Electricians, and Machinists). These occupations have historically provided the majority of employment opportunities and could be referred to as middle-wage, middle-skill positions. In 2009, the

¹ [The Polarization of Job Opportunities in the US Labor Market: Implications for Employment and Earnings](#), April 2010.



average wage for Tier 2 occupations in California was \$20.53 an hour or approximately \$42,700 a year (assuming a 40 hour work week for the entire year).

Tier 3 Occupations include protective services (Security Guards), food service and retail positions (Waiters, Cooks, and Cashiers), building and grounds cleaning positions (Janitors), and personal care positions (Home Health Aides and Child Care Workers). These occupations typically represent lower-skilled service positions with lower wages that require little formal training and/or education. In 2009, the average wage for Tier 3 occupations in California was \$11.99 an hour or approximately \$24,900 a year (assuming a 40 hour work week for the entire year).

Table 1 illustrates the occupational profile for each of the industry clusters in Santa Barbara as well as the overall occupational delineation for the county and for California as a whole. The results of the occupational analysis have several important findings:

1. Santa Barbara County's entire workforce has a relatively large portion (5% higher than the state average) of Tier 1 occupations, a below average portion of Tier 2 occupations (15% below the state average), and almost one in three occupations falls into the Tier 3 occupational category (10% above the state average).
2. Santa Barbara's top three industry clusters for the highest average earnings per worker - Technology and Innovation, Energy and the Environment, and Building and Design - have little or no Tier 3 occupations. More than 95 percent of their occupations are either Tier 1 or Tier 2 occupations.
3. The Healthcare and Business Support Services clusters approximate the county average for percentage of Tier 3 occupations, but both have a higher than county average of Tier 1 occupations.
4. Agriculture, Tourism, and Wineries is the only industry cluster to have proportionally fewer Tier 1 and Tier 2 occupations than the county as a whole and considerably more Tier 3 occupations.

Table 1 Occupational Tiers for Santa Barbara's Industry Clusters

SB's Industry Clusters	Tier 1 Occupations	Tier 2 Occupations	Tier 3 Occupations
Technology & Innovation	65%	34%	1%
Energy & the Environment	51%	46%	3%
Building & Design	50%	48%	2%
Healthcare	41%	28%	31%
Business Support Services	32%	37%	31%
Agriculture & Tourism	15%	13%	72%
Santa Barbara Overall	27%	44%	29%
California Overall	22%	59%	19%



CONCLUSIONS

BW Research offers the following conclusions from the research.

Industry Clusters: A Tool for Engaging Employers

The findings of this study are not meant to be the final and definitive word on industry clusters in Santa Barbara. Instead, the findings of this research will hopefully shed some insight into where Santa Barbara's economy is moving and how that will impact the employment opportunities for today and tomorrow. Equally important is the ability of these findings to begin an informed dialogue with Santa Barbara's dynamic employers to better understand what is critical to their growth and what their needs are for well-trained, productive employees. Some of the key questions and issues to engage employers as a follow-up to this research could include:

1. *For Santa Barbara employers in one of the industry clusters evaluated in this study* – Do you feel the current delineation of industries within each of the clusters includes the industries, technologies, and occupations that are relevant to your company? What industries, technologies, and/or occupations should we include in our assessment to make it more relevant for your firm?
2. *For Santa Barbara employers not in one of the industry clusters* – Do you share any industries, technologies, or occupations with any of the industry clusters that we have evaluated in this study? If so, which ones and why are they important for your company?

Industry Clusters: A Tool for Developing and Providing Training Opportunities

The findings of Santa Barbara's industry cluster focused research also provide some valuable information for developing and considering training and skill development programs for students, job-seekers, and incumbent workers.

1. Occupation-specific training should be taught within the context of industries and industry clusters as employers continually indicated the need for employees to connect industry issues and awareness with their specific occupational skills. For example, Santa Barbara's Wineries are looking for entry-level sales people and customer service representatives who have both the occupational skills and the industry knowledge to effectively communicate with customers.
2. Santa Barbara's employers are looking for applicants with a solid technical foundation in their given occupation and just as importantly, the ability to learn new skills and develop new areas of expertise while on the job. Training programs need to develop job-seekers to teach themselves new skills and technologies while on the job. For example, Santa Barbara's Building and Design employers need project managers who are able to retrain themselves on the evolving standards and requirements that are critical to that industry cluster.



It is also valuable to understand that not all industry clusters have the same impact upon Santa Barbara's workforce and the regional economy. Export-oriented clusters that are able to draw revenue from markets outside the county create a multiplier effect generating additional employment within the county. This is an important consideration for economic developers as well as workforce developers that are looking at training and educational programs that will have the highest return on investment for the county. These export-oriented clusters are also likely to drive innovation as they typically face competitive global markets.

Santa Barbara: Segmenting the County for More Effective Workforce Development Strategies

Any evaluation of Santa Barbara's economy quickly reveals that south Santa Barbara County which includes the City of Santa Barbara has a significantly different economic and workforce profile than its neighbors in the central and northern parts of the county. This is true not only when looking at overall economic trends but it becomes even more apparent when evaluating specific industry clusters within the county. Any workforce development strategies or training and skills development programs should consider the following geographic realities of Santa Barbara's industry clusters:

- Technology and Innovation as well as Energy and the Environment are two relatively small industry clusters (combined countywide employment is below 12,000) where most employers are found in Goleta, the City of Santa Barbara, and surrounding south-county communities. Workforce development strategies for central and northern Santa Barbara County should not emphasize these two clusters as they represent a relatively small portion of employment opportunities.
- Agriculture, Tourism, and Wineries and Healthcare are relatively evenly distributed and provide opportunities for workforce development strategies and training programs throughout the county.
- Building and Design employers can be found throughout Santa Barbara County but were impacted differently over the last five years. Whereas this industry cluster's total employment shrank 13 percent countywide from 2006 to 2011, the central and northern parts of the county lost more employers and jobs over that time period and could see more overall employment growth in a recovering economy.