

2018

Santa Barbara County WDB



Industry, Economic &
Workforce Research



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EXECUTIVE SUMMARY

INTRODUCTION

Santa Barbara County's Workforce Development Board (SBWDB) partnered with BW Research to examine the region's changing economic and workforce landscape. The findings illustrate regional employment dynamics, including industry growth, occupational distribution, and local workforce characteristics. BW Research highlighted key industry clusters, talent and educational characteristics, and regional economic development ecosystems. Yet, as markets emerge and decline, the research evaluates new opportunities and challenges for workforce development in Santa Barbara County. Some of the questions that drove this research include:

1. How is the world of work changing in Santa Barbara County and its three sub-regions (North, Central and South)?
2. What industry clusters are healthy and growing and should be the focus of workforce development strategies?
3. What is Santa Barbara County's current job quality profile and how is it changing?
4. What type of workers is the county importing/exporting, where are the gaps, and are there opportunities to develop employment prospects for local workers?
5. How can Santa Barbara County's Workforce Development Board (SBWDB) work with its partners across the county to facilitate countywide economic development strategies that connect with their workforce development objectives?
6. How can SBWDB best support regional employers who are looking for talent?

Data for this report were mainly extrapolated from the Economic Modelling Specialists Intl. (Emsi), the Bureau of Labor Statistics, California Employment Development Department, and U.S. Census Bureau. Primary data were collected through BW Research and include 146 qualitative employer surveys to better understand the industry landscape in Santa Barbara County.

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KEY FINDINGS: THE STATE OF SANTA BARBARA COUNTY

Regional Economic Profile

1. **Employment in Santa Barbara County has experienced a 10 percent increase since 2010, yet the county's growth rate is below the state and national average and its neighboring counties.** A decline in business services and energy and the environment has had a considerable impact on the county's overall employment levels and growth rate.
2. **The South and North areas are driving most of the county's employment growth, while the Central region has experienced a much slower growth.** The Central region, with above-average unemployment rates, has experienced less than half the job growth rate seen in the South and North regions since 2010.
3. **Almost two-thirds of Santa Barbara County businesses rated the County as a fair, poor, or very poor place to start a new business.** The major workforce issues that are currently impacting businesses in Santa Barbara include finding affordable housing and qualified applicants. Over seven-in-ten companies surveyed have *some* or *great* difficulty finding qualified applicants for open positions.

Industry Clusters Analysis

1. **The industry clusters providing the largest employment continue to be food, beverage, & agriculture, and tourism & hospitality.** These clusters provide 19 percent of all jobs in the county and have increased between 15 and 17 percent since 2010, respectively. This is challenging for the county as these clusters are defined by high tier 3 employment and according to a new national analysis by BW Research are more likely to be impacted by job volatility connected to automation and technology.
2. **High-paying industry clusters such as biotechnology and related devices, information & communication technologies (ICT), and healthcare are growing fast and offer strong career pathways with opportunities for new skills and higher wages.** Since 2010, these three clusters have increased by 54, 47, and 22 percent, respectively, and are expected to continue to grow in the future. As we look for economic growth, these clusters offer opportunities for sustainable career pathways, workforce development, and economic development.

Job Quality/Occupational Analysis

1. **Job quality is deteriorating in Santa Barbara County** – Tier 3 occupations, which represent more than half of all jobs in the county, have been growing at a faster pace than tier 1 and tier 2 jobs since 2010. As the proportion of higher-paying, tier 1 and tier 2 jobs in Santa Barbara County declines, an increasing percentage of residents will need to travel farther to work or work more jobs to continue to live in the county.

Regional Economic Development

1. **The number of patents in the county, a proxy for the region's innovative and creative activity, has shown strong growth since 2010.** With 830 patents registered in 2017, the number of patents registered by

resident inventors has increased by 81% since 2010. The county's innovation industries, however, are growing at a much slower pace than California or the Country.

2. **Most employers rated Santa Barbara's business climate positively.** Over three-in-five (61%) employers rated Santa Barbara County as an excellent or good place to do business. A larger portion of employers in the South (72%) had a positive opinion about the county, compared to the Central (62%) and North (55%) regions. Access to clients and customers and to relevant vendors and suppliers are some of the things employers are most satisfied about and the ability to recruit experienced, high-level talent and to find qualified and competent entry- to mid-level workers are the things employers are least satisfied about.

Talent and Educational Analysis

1. **Educational attainment in the county is much higher in the South region than in the Central and North regions.** In the South region, the percentage of those who hold a bachelor's degree or higher (46%) is more than double that of the North region (16%) and nearly double that of the Central region (24%).
2. **There are more Santa Barbara residents in the workforce than people working in Santa Barbara firms.** There are approximately 206,094 individuals in the resident workforce compared to 202,899 workers in Santa Barbara firms, that is a surplus of 3,195 individuals in the resident-workforce who must find work outside the county.
3. **The largest gap between resident workforce and those employed in the county is in higher-paying management, business, science, and arts occupations.** Santa Barbara is exporting talent in high-skill, high pay occupations in management, business, science, and arts and is importing workers in lower-pay service, sales and office, and production, transportation, and material moving occupations.

Transportation and Commute Patterns

1. **Commuting times in Santa Barbara County are shorter than in Monterey and San Luis Obispo Counties and the state and national average.** Additionally, fewer residents in Santa Barbara drive alone and a larger portion carpool to work, compared to its neighboring counties and the state and national average. Commuting times and behavior have an important impact on residents' quality of life and on the employers' ability to recruit workers to the area.
2. **Employers have indicated that transportation and traffic are a challenge impacting their business.** Commuting to Santa Barbara from areas South of the County, such as Ventura, is a challenge for some employees, while others who live in Northern or Central areas within the County commute to jobs in Ventura and Los Angeles County. Traffic, lack of reliable and frequent train or bus services, and increasing commuting times are all challenges businesses face as their employees commute to work.

CHALLENGES

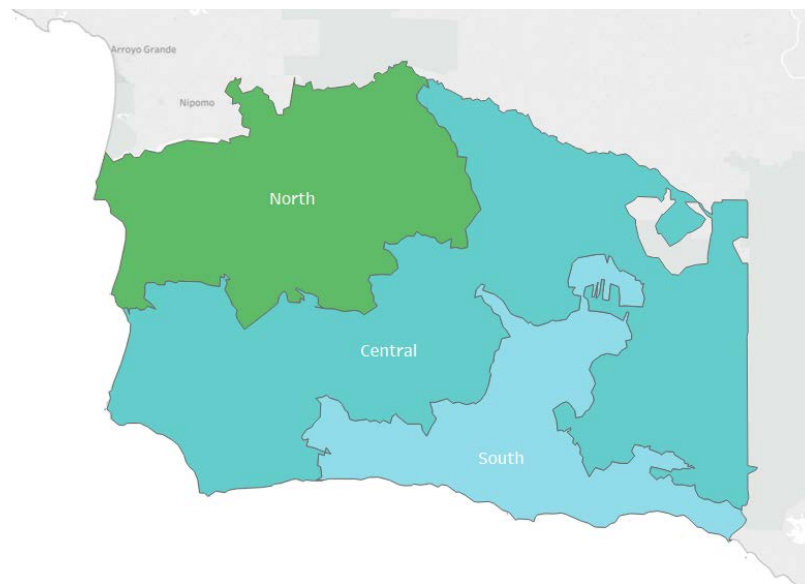
1. **Continuous growth of Tier 3 employment, particularly in relation to the slower growth of Tier 1 and Tier 2 jobs.** As the proportion of tier 3 employment continues to increase and tier 1 to decrease, a growing percentage of residents will need to travel farther to work or work more jobs to continue to live in the county.

2. **The Central region is experiencing a decline in job quality and economic vitality.** With a decrease in Tier 1 employment and overall low job growth rates, the Central region is slowing the economic growth of the county.
3. **The county has experienced the costs of automation, technology, and being a higher cost community to do business.** As experienced by the business services industry, automation and advancements in technology will lead to continued job losses in certain industries and occupational segments and require new skills and training for other industries and occupational segments.
4. **Tourism & hospitality, food, beverage & agriculture, and business services have high tier 3 employment and are some of the clusters most likely to be impacted by job volatility connected to automation and technology.**
5. **Lower educational attainment for residents in North and Central regions** often means lower-paying jobs, limitations in moving up in career pathways and greater difficulty finding new jobs, which ultimately affects the quality of life in the region.

OPPORTUNITIES

1. **Develop Career pathways around the higher paying, with sustainable career pathways, industry clusters such as:**
 - a. Information & Communication Technologies (ICT)
 - b. Biotechnology & Related Devices
 - c. Healthcare
2. **Identify and develop programs and strategies to increase educational attainment in North and Central County adults.** Foundational academic training and developing technical skills demanded in higher-paying career pathways are important strategies to increase the overall level of educational attainment in North and Central County adults.
3. **Look at opportunities to support and develop Entrepreneurs and the innovation ecosystem, as well as to improve the county's business climate.** Patents and related innovative activity are increasing, but that could be short lived as innovation industries are growing at a much slower rate than state or national average.
4. **Housing solutions need to exist to support local businesses.** Affordable housing, or the lack of, affects the employers' ability to recruit and retain valuable employees. Housing solutions not only support Santa Barbara businesses, but by increasing the availability of local talent, can also help attract and grow additional businesses.
5. **Economic development needs to be tied to improving the quality of life in Santa Barbara County by:**
 - a. Increasing economic opportunity for all, including those that are currently less equipped to benefit from it.
 - b. Communicating to residents the importance of smart economic development to improve the quality of life in Santa Barbara County.

Santa Barbara County



For this report, the Santa Barbara County is divided into three regions:

North	Central	South
Casmalia, Guadalupe, Orcutt, Santa Maria	Buellton, Cuyama, Lompoc, Los Alamos, Mission Hills, Santa Ynez, Solvang, Vandenberg, Vandenberg Village	Carpinteria, Goleta, Isla Vista, Mission Canyon, Montecito, Santa Barbara, Summerland, Toro Canyon

For zip code breakdowns of regions, please see Appendix B.

ECONOMY - OVERALL EMPLOYMENT

Santa Barbara County supports a total of **206,052 jobs**, a 10% increase since 2010 for a total of 19,443 jobs created (Figure 1). There was an overall increase in employment between 2010 and 2017, with the exception of a small decrease from 2012 to 2013, which was only experienced in Santa Barbara and not in the state nor the country.

Santa Barbara showed higher growth rates than California and the United States between 2010 and 2012, with California surpassing Santa Barbara's growth in 2013 and the United States in 2016 (Figure 1). Overall, even though Santa Barbara has grown since 2010, its growth rate is just below the national average (11%) and is 7 percentage points below the state's average.

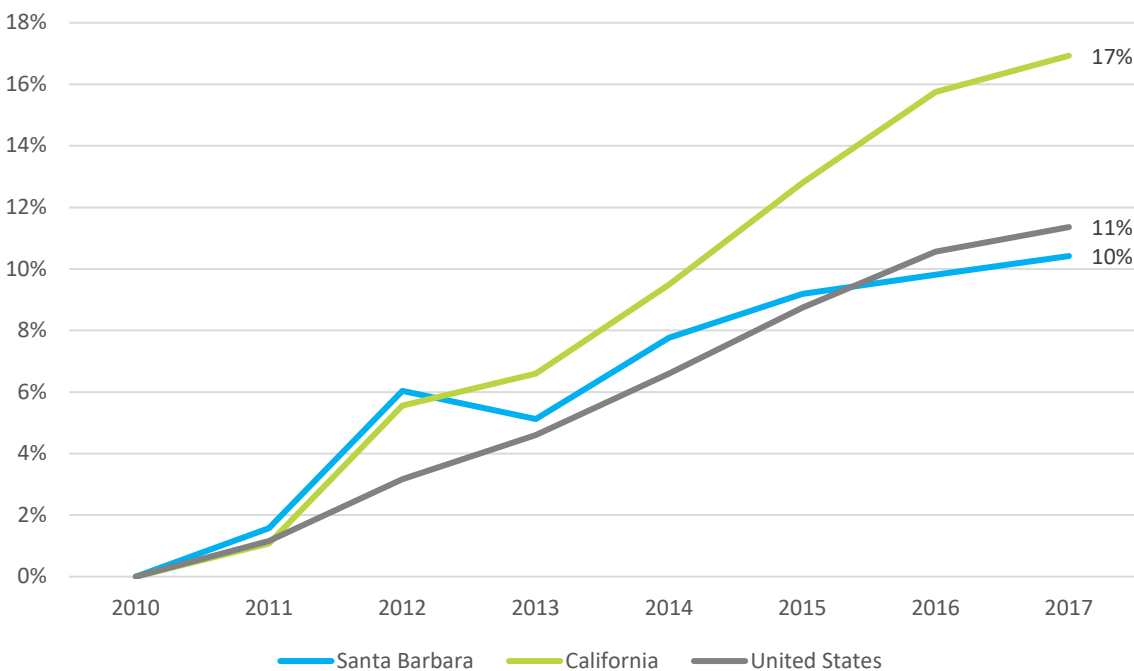
Economic Profile Analysis Summary

Employment in Santa Barbara is growing, but at a slower rate than its neighboring counties and the national and state average.

Why is this Important?

Overall employment growth is a general indicator of the economic health of a region. Understanding the county's employment trends can help support efforts to effectively grow the economy.

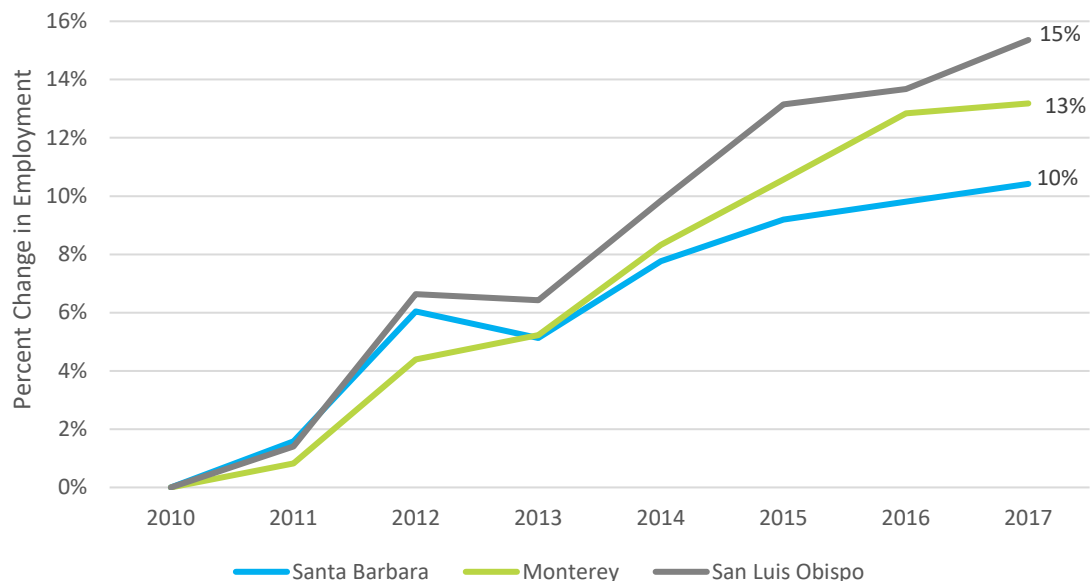
Figure 1: Overall Change in Employment by Region, 2010-2017¹



¹ Source: Emsi 2018.1 Class or Worker Data based primarily on the Quarterly Census of Employment and Wages (QCEW) from the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA).

Looking at California's Central Coast region, since 2010 all three counties of Santa Barbara, Monterey, and San Luis Obispo experienced an employment growth, with San Luis Obispo County seeing the largest growth, followed by Monterey, and Santa Barbara counties (Figure 2). Looking at the annual changes, the three counties grew from 2010 to 2012, in 2013 Santa Barbara and San Luis Obispo experienced a 1 percent decrease, and since then all three counties have been continuously growing. Yet, growth rates among the three counties have varied, with Santa Barbara showing a growing rate (10%) that is 5 percentage points lower than San Luis Obispo (15%) and 3 percentage points lower than Monterey (13%) (Figure 2). Overall, Santa Barbara's growth rate since 2010 is lower than its two neighboring counties.

Figure 2: Change in Central Coast Employment, 2010-2017²



In trying to understand why Santa Barbara County is not growing as fast as its neighbor counties, we looked at different industries in the three-county region since 2012. A major change occurring in Santa Barbara is the loss of jobs in the business services industry, which is also happening but to a lesser degree in San Luis Obispo and it is not occurring in Monterey County. Since 2012, **4,373 business services jobs** were lost in Santa Barbara County, or 5 percent of all jobs in the county (Table 1). This major loss is slowing down the overall job growth in Santa Barbara and it will be looked into more detail in the special section of this report.

Another industry experiencing a decline in jobs is the Energy & Environment (E&E) industry, which experienced a **1,060 job-loss** since 2012. This decline was also felt in the other counties but to a much lesser degree (Table 1). In short, major job losses in the business services and energy &

² Source: Emsi 2018.1 Class or Worker Data.

environment industries are slowing job growth in Santa Barbara, especially compared to other counties and regions that are not experiencing the same losses.

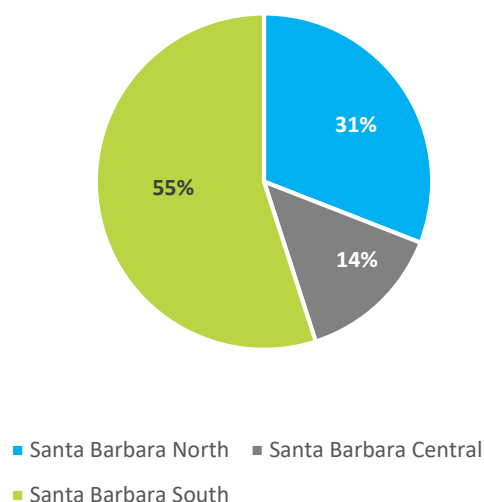
Table 1: Employment Change by Industry and County, 2012-2017³

Employment Change 2012-2017	Santa Barbara County	Monterey County	San Luis Obispo County
Business Services Industry	(4,373)	1,652	(2,290)
Energy & Environment	(1,060)	(233)	(147)

ECONOMY - EMPLOYMENT BY AREA

The concentration of jobs in Santa Barbara County varies by region. The South region has a total of 113,287 jobs, or over half (55%) of the total employment in the county, the North region has a total of 63,713 jobs, or almost one third of all county jobs (31%), and the Central region has a total of 29,052 jobs, or 14 percent of all county jobs (Figure 3).

Figure 3: Santa Barbara County Employment by Region, 2017



Regional Economic Analysis Summary

The South and North regions are driving most of the employment growth in the county, while the Central region is behind with slower job growth and higher unemployment rates.

Why is this Important?

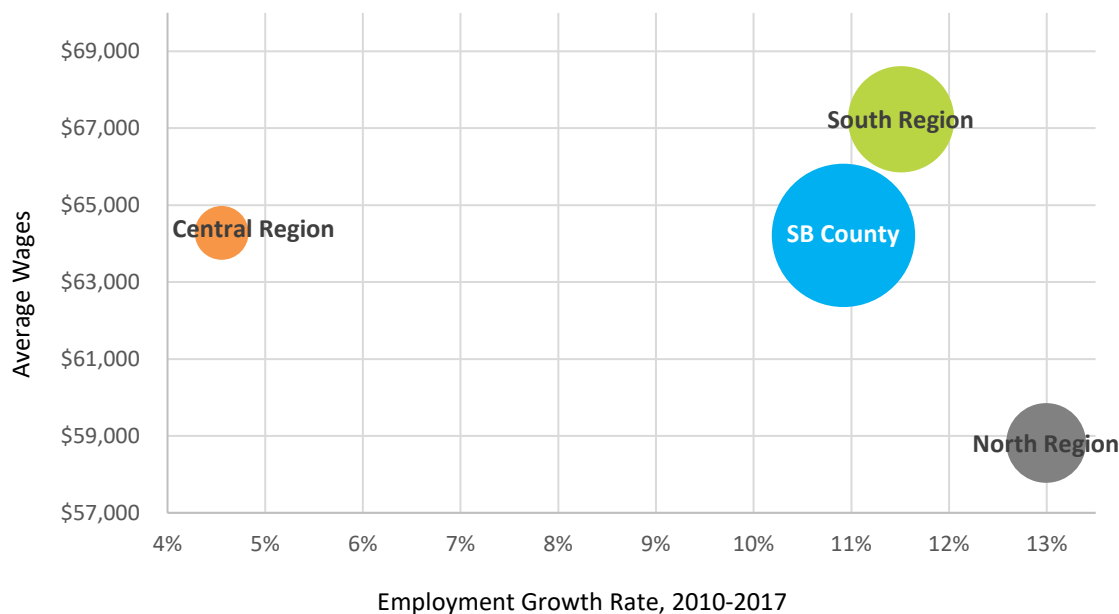
While some economic strategies can be developed countywide, given the different regional economic and demographic profiles, some strategies considered should be area-specific.

Employment growth has also varied by region. Since 2010, the North region experienced the largest growth at 12 percent, closely followed by the South region at 11 percent, and the Central region

³ Source: Emsi 2018.1 Class or Worker Data.

staying behind with a lower growth rate of 4 percent (Figure 4). Even though all regions have experienced growth since 2010, the North and South regions have seen the largest growth rates, with the Central region falling behind. Finally, average wages are higher in the South, followed by the Central and the lastly the North region (Figure 4).

Figure 4: Regional Economic Profile⁴



Note: The size of the bubbles represents the number of jobs in the region.

ECONOMY - OVERALL UNEMPLOYMENT

The county's unemployment rate continues to decline, being now at a low 4.5 percent, which is slightly lower than the state's average rate of 4.8 percent. From 2006

Overall Unemployment Analysis Summary

Santa Barbara's unemployment rate continues to decline since 2010 and is now at a low 4.5 percent, which is slightly lower than the state's average rate of 4.8 percent.

⁴ Source: Emsi 2018.1 Class of Worker Data.

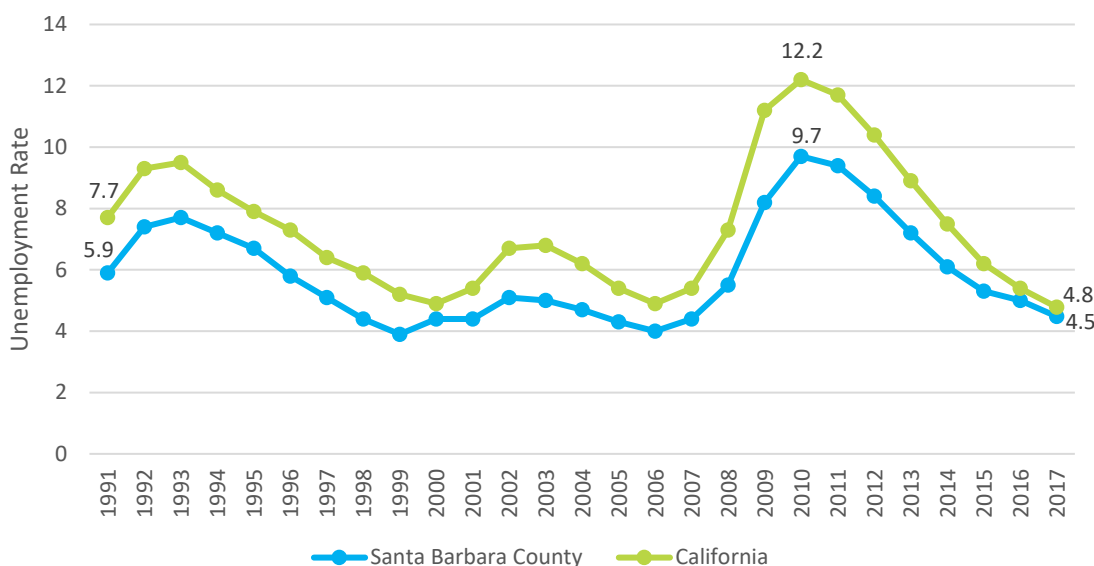
to 2010, the unemployment rates rose in both the county and the state, but have been decreasing since, reaching the lowest levels since 2008 (Figure 5).

It is also worth noting that Santa Barbara County's unemployment rate has been historically about 2 percentage points lower than the state average but is currently just 0.3 percent less than the state average. Is this a function of both facing a tight labor market or is the county's employment profile changing?

Why is this Important?

Just like with overall employment growth, unemployment rate is another way to measure the economic health of a region. A low unemployment rate is a sign of a tight labor market, which generally means more job opportunities than available workforce. As Santa Barbara continues to experience job growth and declining unemployment rates, it could face future workforce shortages.

Figure 5: Historic Unemployment Rates, 1991-2017⁵

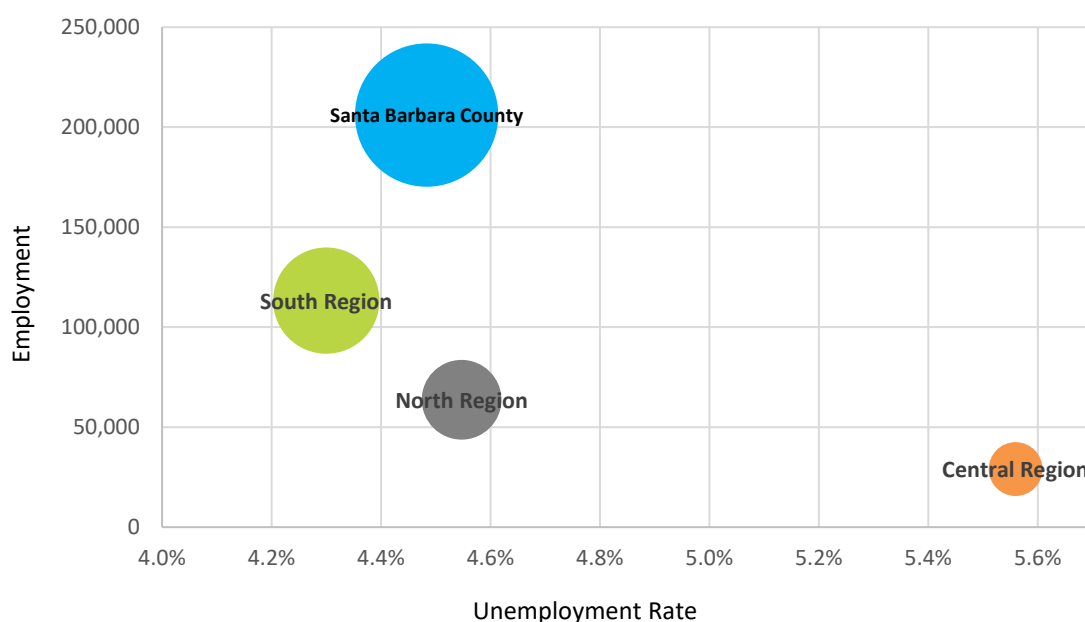


Unemployment rates vary among regions. The south region has a below-average unemployment rate, the North region sits at an average unemployment rate, and the Central region experiences an above-average unemployment rate (Table 2). The South region has the largest number of jobs and the lowest unemployment rate, followed by the North region, and lastly the Central region (Figure 6).

⁵ Source: California Employment Development Department

Table 2: Regional Unemployment Breakdown^{6,7}

Region	2017 Unemployment Rate
Santa Barbara County	4.5%
SB North	4.5%
SB Central	5.6%
SB South	4.3%

Figure 6: Regional Employment and Unemployment Breakdown⁸


⁶ **North:** Guadalupe, Orcutt, Santa Maria; **Central:** Buellton, Lompoc, Los Alamos, Missions Hills, Santa Ynez, Solvang, Vandenberg, Vandenberg Village; **South:** Carpinteria, Goleta, Isla Vista, Mission Canyon, Montecito, Santa Barbara, Summerland, Toro Canyon.

⁷ Source: California Employment Development Department.

⁸ Source: Emsi 2018.1 Class of Worker Data and California Employment Development Department.

EMPLOYER SENTIMENT

A total of 146 businesses from all three Santa Barbara areas (North, Central and South) completed a brief phone or online survey between April 9th and May 1st, 2018. The businesses surveyed represented a mixed of industries such as food, beverage & agriculture (35%), healthcare (21%), business support services (21%), and tourism (10%).

1. Growth Expectations

Most businesses (53.9%) expect to have the same number of employees 12 months from now, nearly two-in-five (39.7%) expect to have more employees, and just 3 percent expect to have fewer employees. A larger portion of small businesses⁹ (45%) and those companies who reported having *great difficulty* in finding qualified applicants (51.7%) expect to have more employees 12 months from now, compared to medium and large companies⁸ (39.5% and 21.7%, respectively) and the companies who reported *little, some, or no* difficulty finding qualified applicants (37%).

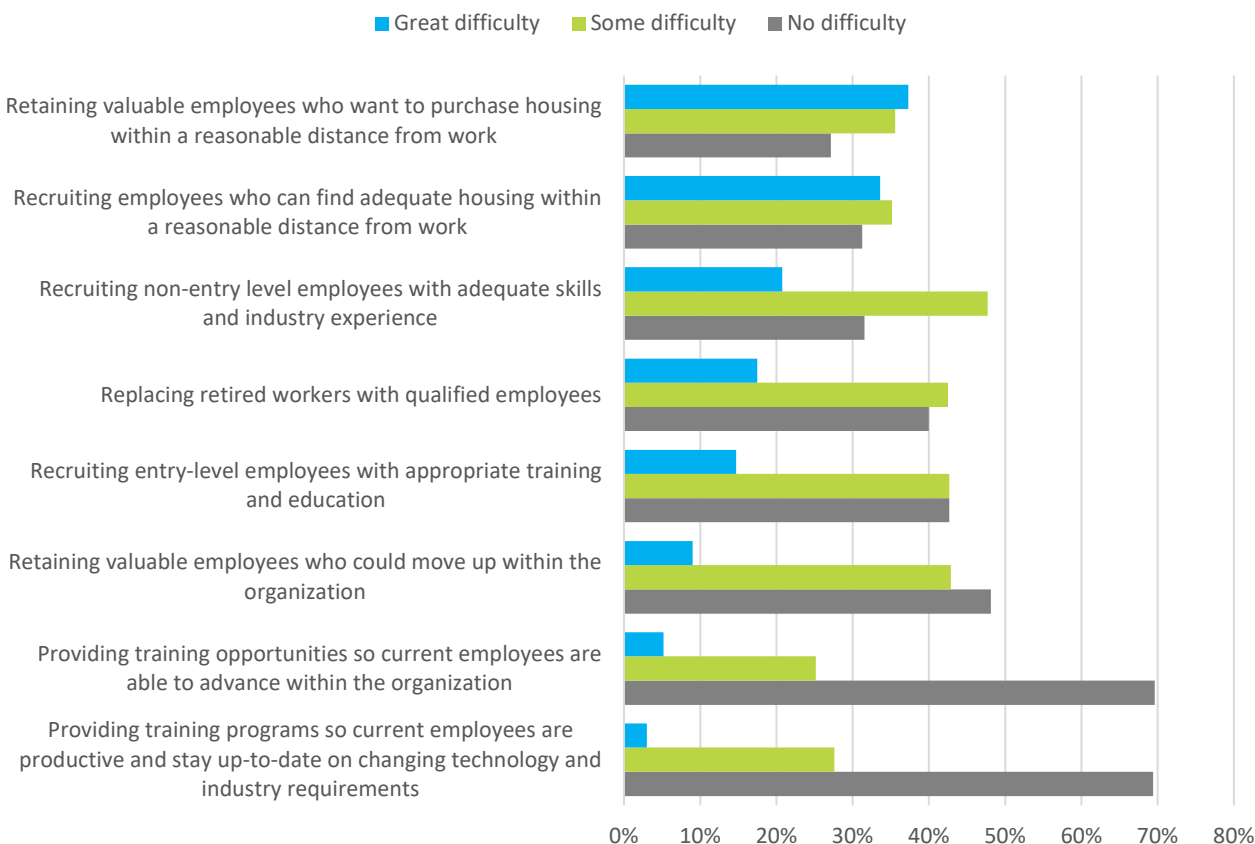
2. Challenges to Growth

Most companies (70.5%) reported having *some* or *great* difficulty finding qualified applicants who meet the organization's hiring standards, compared to only 28 percent who reported little to no difficulty. The two issues that raise the highest level of (*great*) difficulty for businesses are *retaining* and *recruiting* valuable employees who want to purchase or find adequate housing within a reasonable distance from work, followed by recruiting non-entry level employees with adequate skills and industry experience (Figure 7).

"High cost of living [and] not enough low-income housing does not support employers [who want] to attract and retain employees [...]"

⁹ Small businesses: 24 or fewer employees; medium companies: 25 to 99 employees; large companies: 100 or more employees.

Figure 7: Employers' Level of Difficulty Addressing Different Workforce Issues¹⁰



3. Business Climate

Less than two thirds (61%) of employers rated Santa Barbara County positively as an *excellent* or *good* place to do business and over a third of employers (38.7%) rated Santa Barbara as a *fair*, *poor*, or *very poor* place to do business (Figure 8). Close to **two-thirds of employers** (64.5%) rated the county as a *fair*, *poor*, or *very poor* place to start a new business, and only 35 percent rated the county positively (Figure 9). These low ratings show that the county is facing some challenges, with employers reporting the highest level of dissatisfaction for the employers' ability to recruit experienced, high-level talent, and to find qualified and competent entry- to mid-level workers (Figure 10). When asked about specific issues that currently impact their business, some of the most common answers were housing and the ability to find qualified applicants. To help

"I think investing more in vocational training would be helpful, there is a shortage of skilled labor, and unskilled labor."

¹⁰ Don't know/Refused answers were excluded.

businesses succeed, employers mentioned more affordable housing and more training opportunities to the local workforce.

Figure 8: Employers' Ratings of Santa Barbara County as a Place to do Business¹¹

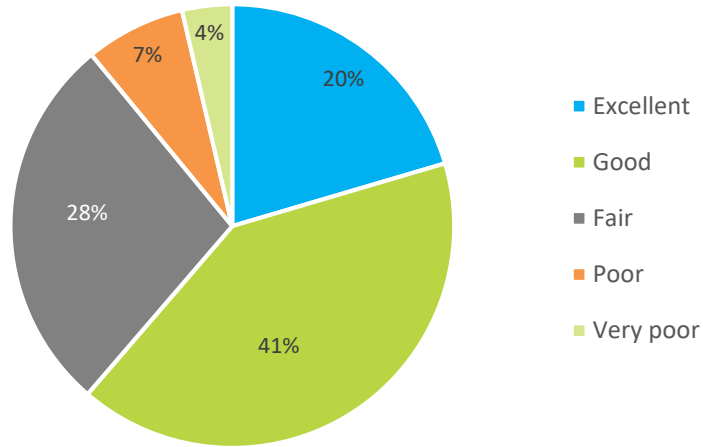
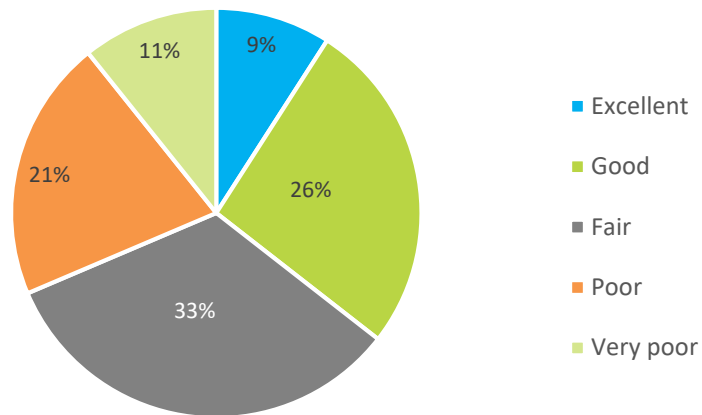


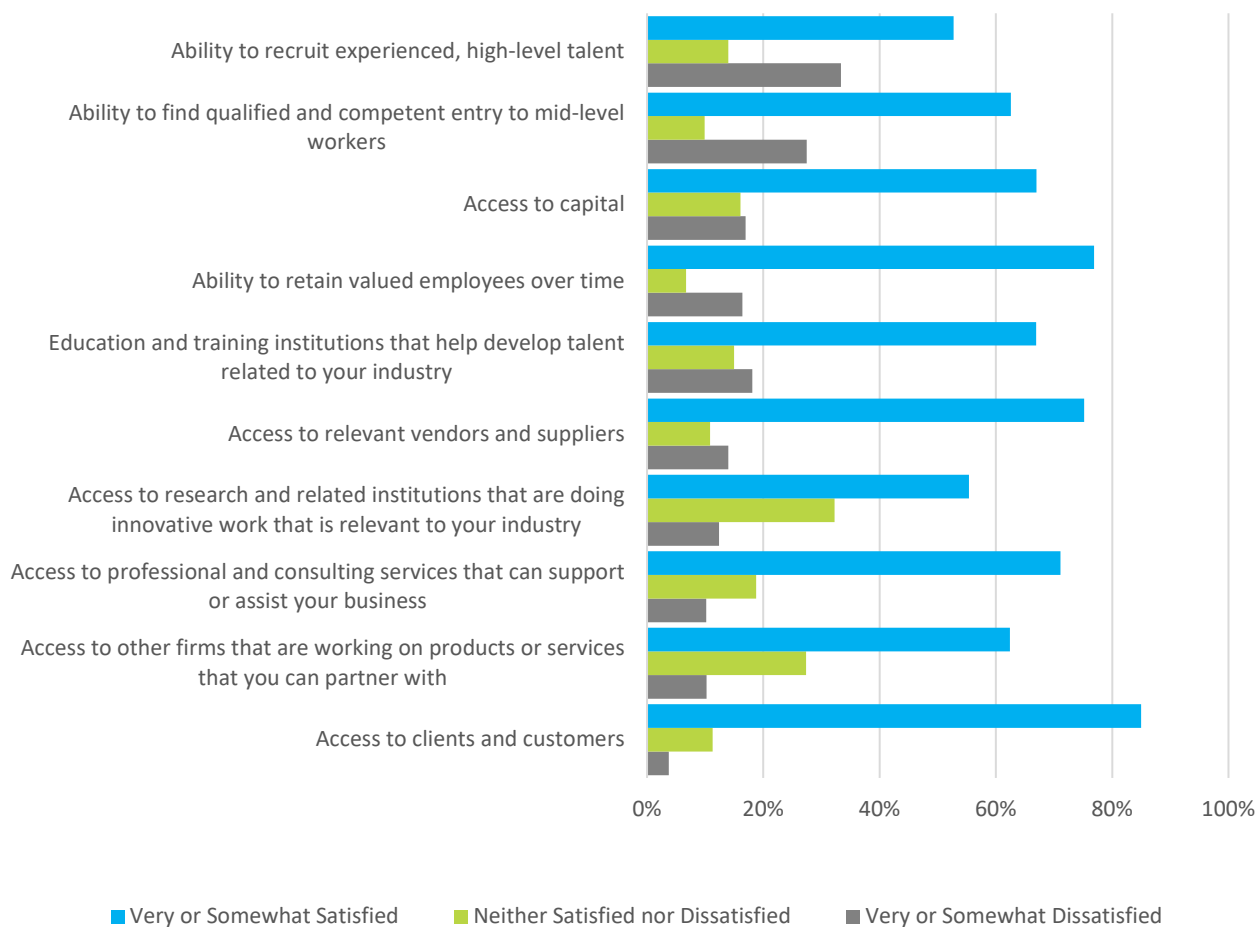
Figure 9: Employers' Ratings of Santa Barbara County as a Place to Start a New Business¹²



¹¹ Don't know/Refused answers were excluded.

¹² Ibid.

Figure 10: Employers' Level of Satisfaction with Business Climate Issues and Attributes in Santa Barbara County



ECONOMY - INDUSTRY CLUSTER ANALYSIS

Industry clusters are geographic concentrations of labor and capital that share a common market and exchange supporting goods and services. Unlike the classical industry sectors, clusters are comprised of interrelated industries complementing various elements of the supply chain, creating a local ecosystem of industries. Industry clusters are also a useful framework to identify relevant focal points for workforce development, outlining local economic drivers, emphasizing job growth and quality, and allowing Santa Barbara's Workforce Development Board to:

1. **Engage with employers that are central to countywide economic growth.** Regional markets may be less connected to the overall labor market trend. A focus on industry clusters provides insight into how local employers collaborate to drive the county's economic growth.
2. **Provide valuable information to current workers and job-seekers looking to develop new skills and career pathways.** Workforce development focused on key areas of growth will capitalize on the region's job opportunities, guide individuals to sectors with strong employer demand, and grow the local economy.
3. **Design programs that best support the current and projected regional workforce demand.** Industry cluster analysis helps understand regional employer demand to create valuable workforce development programs.
4. Ensure that job-seekers can transition into employment with sustainable wages and strong career opportunities because most industry clusters are targeted towards high quality employment within the county.

Industry Clusters Analysis Summary

Higher paying industry clusters such as **information & communication technologies (ICT), biotechnology and related devices**, and **healthcare** have all grown by 22 percent or more since 2010, have above average wages for the region, and offer strong career pathways with opportunities for new skills and higher salaries.

Why is this Important?

These industry clusters offer opportunities for training and workforce development as we look for economic and workforce opportunities in the county.

SANTA BARBARA INDUSTRY CLUSTERS ANALYSIS

Nine key industry clusters were identified in Santa Barbara County based on regional labor market trends, which account for approximately 47 percent of the county's total employment. These are:

Healthcare includes all services related to the diagnosis, treatment, and prevention of disease, illness, injury, and other physical or mental impairments. The cluster covers all practitioners in medicine, chiropractic, dentistry, nursing, pharmaceutical care, etc.

Energy and Environment encompasses all industries that extract, produce, and sell energy. This includes environmental consulting services, testing laboratories, equipment manufacturing, hazardous and nonhazardous waste treatment and disposal.

Building and Design includes all firms that design and build residential and non-residential buildings, such as contractors, architects, landscaping, building inspection services, interior design, and material manufacturing and wholesale.

Aerospace and Defense¹³ consists of all industries that manufacture and design instruments, aircrafts, space vehicles, and other engine components.

Information and Communication Technologies (ICT) is the collection of industries that manufactures or sells electrical equipment and services, including computers, audio and video equipment, semiconductors, telecommunications, data processing and hosting, etc.

Biotechnology & related Devices includes manufacturing, research, and suppliers related to biotechnology, agricultural chemicals, medical instruments, and pharmaceutical equipment intended to improve the quality of human life.

Business Services involve any management, consulting, employment, administrative, advertisement, accounting, legal, marketing, design, building, and facility support services.

Food, Beverage & Agriculture are all industries related to crop, animal, food and beverage production. This includes agricultural support services, bakeries and other food manufacturing, as well as breweries, wineries, and distilleries. This cluster is split into two segments; agriculture and food & beverage production.

Tourism and Hospitality consists of all business sectors that support hospitality services and recreation, including museums, casinos, accommodation services, sightseeing transportation,

¹³ Aerospace and Defense includes defense contractors but does not include military employment.

campgrounds, amusement parks, sports, rental equipment etc. This cluster includes full-service restaurants and bars.

Highest Employment

The industry clusters in Santa Barbara County with the highest employment are food, beverage, & agriculture, healthcare, tourism & hospitality, and building and design. Not only do these clusters provide a significant number of jobs in the county, these jobs have also been increasing since 2010.

Highest Employment Growth

All industry clusters have grown since 2010, except for energy & environment (-17%), business services (-9%), and aerospace and defense (0%). The clusters experiencing the highest growth have been biotechnology and related devices (54%), ICT (47%), and healthcare (22%). These industries are expected to continue to grow and provide additional job opportunities in the area (Table 3).

Table 3: Santa Barbara Industry Clusters Employment¹⁴

Industry Clusters	2017 Employment	% of county	% Growth since 2010	Earnings per Worker
Food, Beverage & Agriculture	23,282	11%	15%	\$42,853
Healthcare	17,562	9%	22%	\$78,907
Tourism & Hospitality	16,091	8%	17%	\$31,935
Building & Design	12,897	6%	7%	\$76,166
Business Services	10,544	5%	-9%	\$58,189
Information & Communications Technologies (ICT)	7,903	4%	47%	\$128,894
Biotechnology & related Devices	3,506	2%	54%	\$114,809
Aerospace & Defense	3,199	2%	0%	\$107,350
Energy & Environment	1,792	1%	-17%	\$115,507

¹⁴ Source: Emsi 2018.1 Class of Worker Data.

Santa Barbara County	206,052	100%	10%	\$64,214
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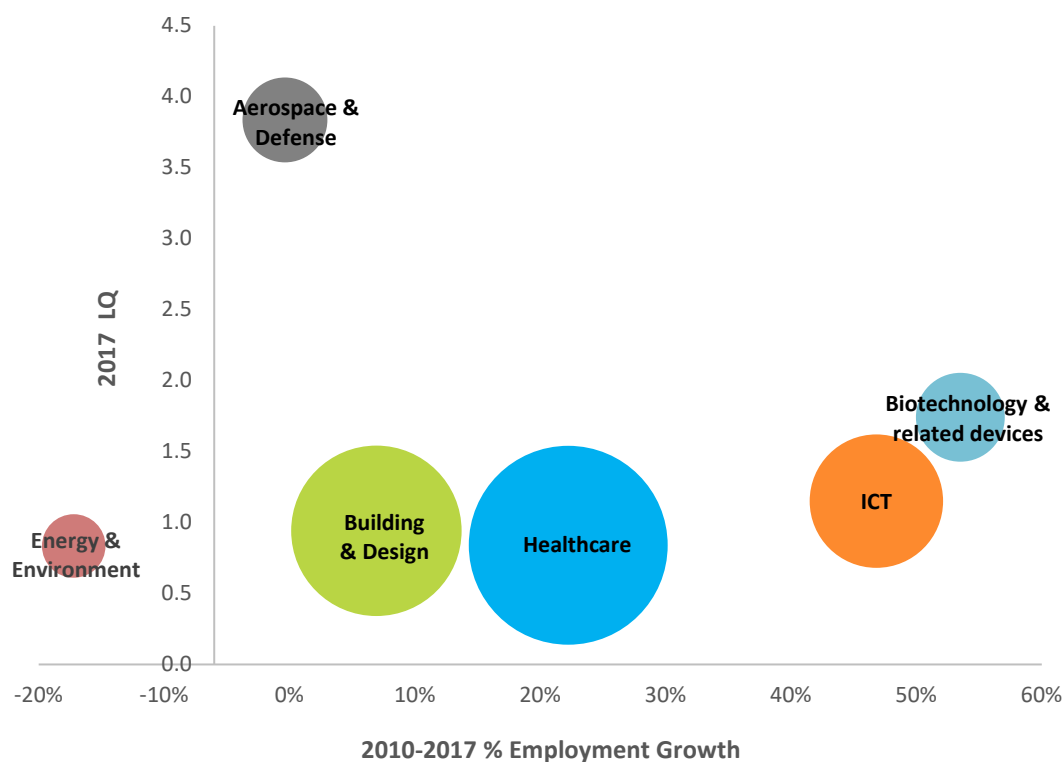
Highest Wages

Nearly all clusters provide earnings per worker higher than the county's overall earnings average, except for business services, food, beverage & agriculture, and tourism & hospitality (Figure 12). The industry clusters providing the highest paying jobs include ICT, energy and environment, biotechnology and related devices, and aerospace and defense. From these four clusters, only ICT and biotechnology have increased employment since 2010 (Table 3 and Figure 11).

Highest Job Concentration

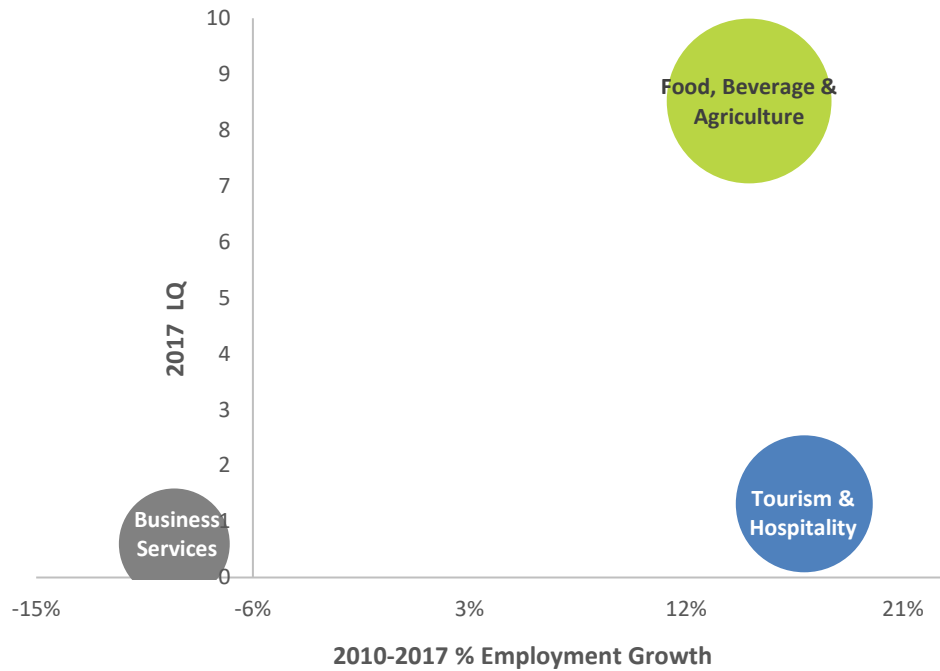
The industry clusters with job concentrations above the national average include food, beverage & agriculture, which is more than eight times higher than the national average, biotechnology & related devices, tourism and hospitality, and ICT (Figure 11 and Figure 12).

Figure 11: Santa Barbara Industry Clusters - Above County Average Earnings¹⁵



¹⁵ Source: Emsi 2018.1 Class of Worker Data.

Figure 12: Santa Barbara Industry Clusters - Below County Average Earnings¹⁶



HEALTHCARE

The healthcare industry cluster provides a significant portion of the county's employment, above average earnings per worker, and it has experienced a steady growth in the past years.

Recent Employment Trends

Santa Barbara's Healthcare industry cluster provided 17,562 jobs in 2017, or 9 percent of all jobs in the county, with average earnings per worker of \$78,907, which is above the overall county's average of \$64,214.

Industry Concentration

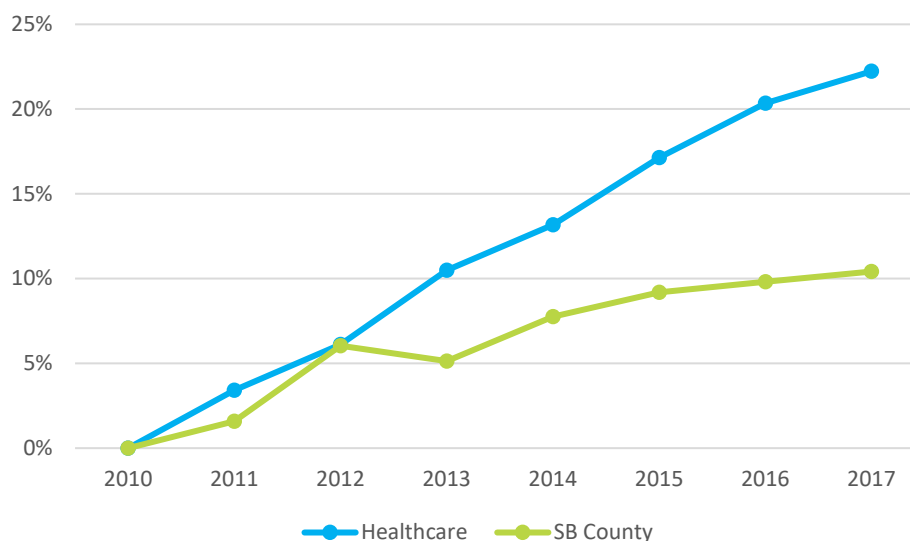
With a location quotient of 0.84, the healthcare job concentration in the county is 16% below the national average for the same cluster. Compared to 2010, the job concentration increased by approximately 11 percent.

¹⁶ Source: Emsi 2018.1 Class of Worker Data.

Employment Growth

The healthcare cluster has experienced the largest job growth among the nine industry clusters with approximately 3,194 jobs created since 2010, or a 22 percent increase which is more than twice the county's average of 10 percent (Figure 13).

Figure 13: Healthcare Cluster Employment, 2010-2017¹⁷



Healthcare Occupations

Santa Barbara's Healthcare occupations are more concentrated among tier 3 occupations, followed by tier 1 and tier 2 (Table 4). Median hourly earnings for the most common occupations¹⁸ in the county range from \$17.57 to \$47.23 and typically require an education level between a postsecondary nondegree award and a bachelor's degree (Table 5).

Table 4: Santa Barbara County's Healthcare Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
31%	29%	40%

¹⁷ Source: Emsi 2018.1 Class of Worker Data.

¹⁸ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 5: Healthcare Occupations - Wage and Education¹⁹

Description	Median Hourly Earnings	Typical Entry-Level Education
Registered Nurses	\$47.23	Bachelor's degree
Medical Assistants	\$17.57	Postsecondary nondegree award
Dental Assistants	\$21.83	Postsecondary nondegree award
Licensed Practical and Licensed Vocational Nurses	\$26.75	Postsecondary nondegree award
Dental Hygienists	\$47.23	Associate degree

ENERGY & ENVIRONMENT

The energy & environment (E&E) industry cluster provides some of the highest wages in the county; however, the number of jobs after reaching a peak in 2012 has been steadily declining since.

Recent Employment Trends

Santa Barbara's energy & environment industry cluster provided 1,792 jobs in 2017 with average earnings per worker of \$115,507, well above the overall county's average of \$64,214, but below the national average for the same industry cluster of \$118,519.

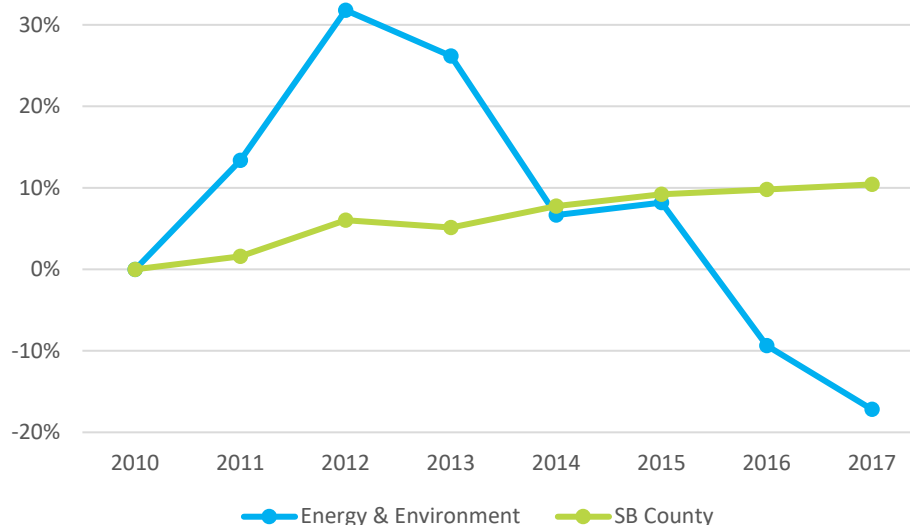
Industry Concentration

With a location quotient of 0.83, the E&E job concentration in the county is 17% below the national average for the same cluster. Compared to 2010 when the job concentration was 3% higher than the national average, the job concentration in the county decreased by approximately 19%.

Employment Growth

With approximately 1% of all jobs in the county, the E&E cluster has experienced a 17% decline, or a 372-job loss, since 2010 (Figure 14).

¹⁹ Source: Emsi 2018.1 Class of Worker Data.

Figure 14: Energy & Environment Cluster Employment, 2010-2017²⁰


Energy & Environment Occupations

Santa Barbara’s Energy & Environment occupations are mostly concentrated among tier 1 and tier 2 occupations, with the largest portion of the occupations fitting in tier 1 (43%) (Table 6). Since 2010, tier 1 distribution increased by 3 percent, at the expense of tier 2 occupations. This means that job quality has increased in this industry cluster since 2010. Median hourly earnings for the most common occupations²¹ in the county range from \$23.31 to \$50.68 and typically require an education level between a high school diploma and a bachelor’s degree (Table 7). The occupations that experienced the largest decline since 2010 included management analysts and general managers, oil and gas service unit operators, truck and tractors drivers, and general office clerks.

Table 6: Santa Barbara County’s Energy & Environment Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
43%	38%	19%

²⁰ Source: Emsi 2018.1 Class of Worker Data.

²¹ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 7: Energy & Environment Occupations - Wage and Education²²

Description	Median Hourly Earnings	Typical Entry-Level Education
Management Analysts	\$43.66	Bachelor's degree
General and Operations Managers	\$50.68	Bachelor's degree
Sales Representatives, Services, All Other	\$23.31	High school diploma or equivalent
Market Research Analysts and Marketing Specialists	\$29.23	Bachelor's degree
Accountants and Auditors	\$38.81	Bachelor's degree

BUILDING & DESIGN

The building & design (B&D) industry cluster is an important part of Santa Barbara county's economy with wages above the county's average and jobs that have been increasing throughout the years.

Recent Employment Trends

Santa Barbara's building & design industry cluster provided 12,897 jobs in 2017 with average earnings per worker of \$76,166, which are above both the county's average of \$64,214 and the national average for the same industry cluster of \$72,798.

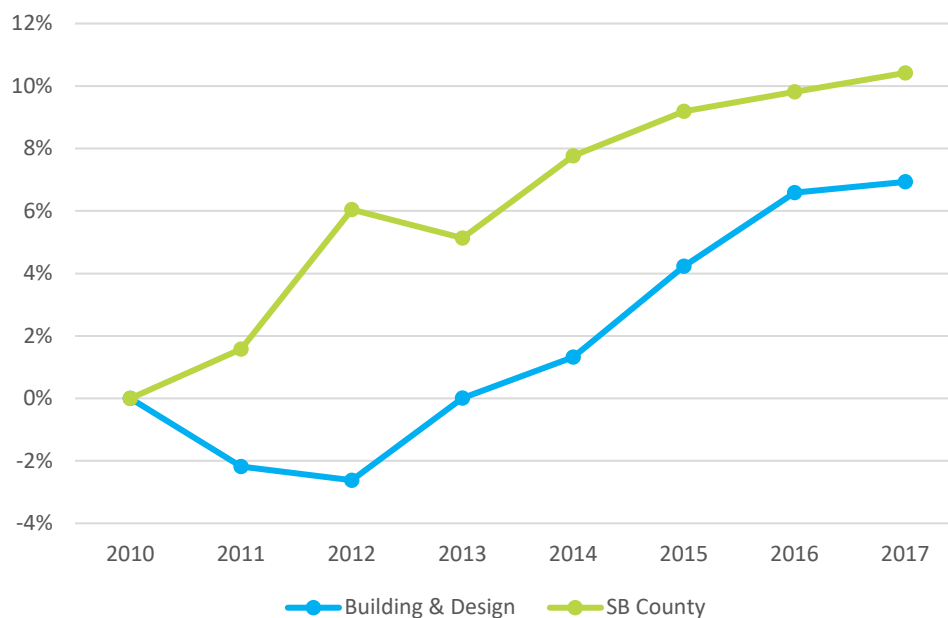
Industry Concentration

With a location quotient of 0.94, the B&D job concentration in the county is just 6% below the national average for the same cluster. Compared to 2010 when the job concentration was 4% higher than the national average, this cluster's job concentration in the county decreased by approximately 9% since 2010.

Employment Growth

With approximately 6% of all jobs in the county, the B&D cluster has experienced a 7% increase, or an 836-job growth, since 2010 (Figure 15).

²² Source: Emsi 2018.1 Class of Worker Data.

Figure 15: Building & Design Cluster Employment, 2010-2017²³


Building & Design Occupations

Santa Barbara’s Building & Design occupations are mostly concentrated in tier 1 (50%), followed by tier 3 and tier 2 occupations (Table 8). Since 2010, there was a 1 percent increase in the distribution of tier 1 occupations at a decrease in tier 3 occupations. Median hourly earnings for the most common occupations²⁴ in the county range from \$25.57 to \$50.68 and typically require an education level between a high school diploma and a bachelor’s degree (Table 9).

Table 8: Santa Barbara County’s Building & Design Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
50%	23%	27%

²³ Source: Emsi 2018.1 Class of Worker Data.

²⁴ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 9: Building & Design Occupations - Wage and Education²⁵

Description	Median Hourly Earnings	Typical Entry-Level Education
Carpenters	\$25.57	High school diploma or equivalent
First-Line Supervisors of Construction Trades and Extraction Workers	36.57	High school diploma or equivalent
Electricians	30.65	High school diploma or equivalent
General and Operations Managers	50.68	Bachelor's degree
Construction Managers	43.75	Bachelor's degree

AEROSPACE & DEFENSE

Santa Barbara County's aerospace & defense (A&D) industry cluster has a high job concentration in the region, high wages, and employment that has remained nearly the same since 2010.

Recent Employment Trends

Santa Barbara's aerospace & defense industry cluster provided 3,199 jobs in 2017 with average earnings per worker of \$107,350, which are above the county's average of \$64,214, but below the national average for the same industry cluster of \$128,158.

Industry Concentration

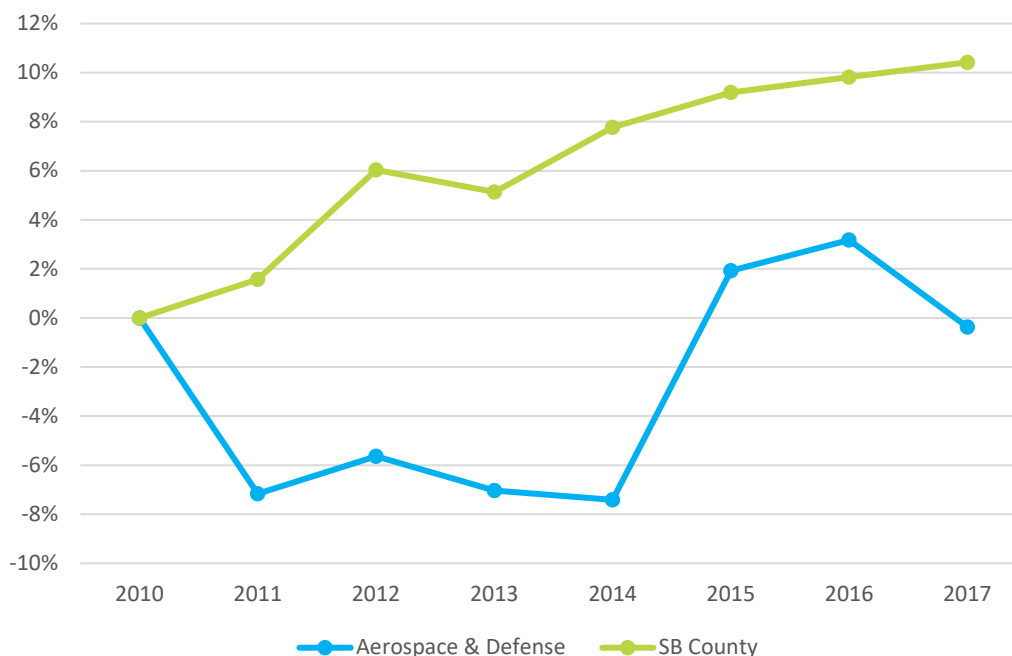
With a location quotient of 3.84, the A&D job concentration in the county is nearly 4 times the national average for the same cluster. Compared to 2010, the current job concentration increased by approximately 3% since 2010.

Employment Growth

With approximately 2% of all jobs in the county, the A&D cluster has remained nearly the same with a 12-job loss since 2010 (Figure 16).

²⁵ Source: Emsi 2018.1 Class of Worker Data.

Figure 16: Aerospace & Defense Cluster Employment, 2010-2017



Aerospace & Defense Occupations

Santa Barbara's Aerospace & Defense occupations are mostly concentrated in tier 1 (67%) and tier 2 (32%) and this distribution has not changed since 2010 (Table 10). As such, median hourly earnings for the most common occupations²⁶ in the county range from \$18.36 to \$57.69 and typically require an education level between a high school diploma and a bachelor's degree (Table 11).

Table 10: Santa Barbara County's Aerospace & Defense Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
67%	32%	1%

²⁶ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 11: Aerospace & Defense Occupations - Wage and Education²⁷

Description	Median Hourly Earnings	Typical Entry-Level Education
Software Developers, Systems Software	\$57.69	Bachelor's degree
Industrial Engineers	49.56	Bachelor's degree
Electrical and Electronic Equipment Assemblers	18.36	High school diploma or equivalent
Machinists	20.53	High school diploma or equivalent
Electrical and Electronics Engineering Technicians	28.26	Associate degree

BIOTECHNOLOGY & RELATED DEVICES

Santa Barbara County's biotechnology & related devices industry cluster has had a tremendous growth in the county, providing above average earnings per worker and having a job concentration above the national average for the same cluster.

Recent Employment Trends

Santa Barbara's biotechnology & related devices industry (B&RD) cluster provided 3,506 jobs in 2017 with high average earnings per worker of \$114,809, which are above the county's average of \$64,214, but below the national average for the same industry cluster of \$128,855.

Industry Concentration

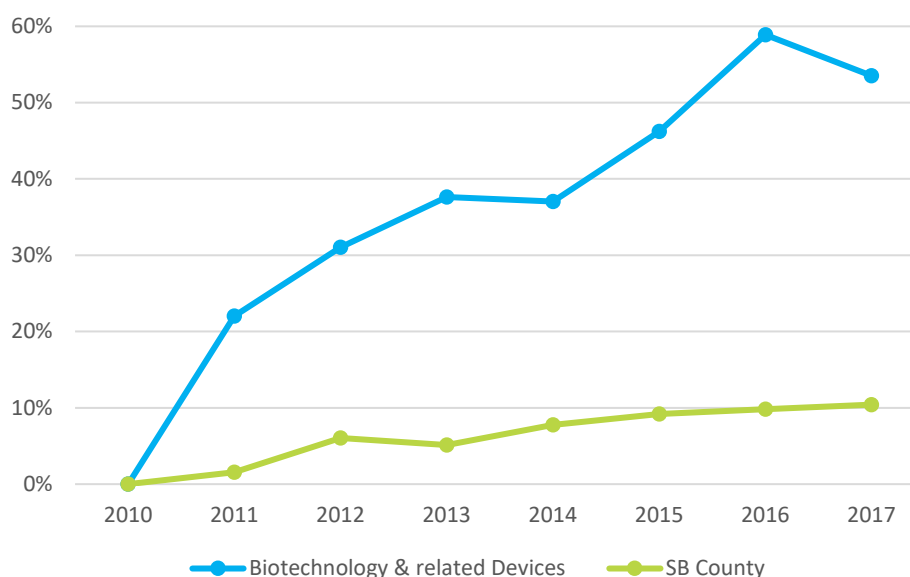
With a location quotient of 1.74, the B&RD job concentration in the county is 74% above the national average for the same cluster. Compared to the 2010 location quotient of 1.2, the current job concentration increased by approximately 45% since 2010.

²⁷ Source: Emsi 2018.1 Class of Worker Data.

Employment Growth

This cluster has experienced a tremendous growth of 54%, or a total of 1,222 jobs created since 2010 (Figure 17). Among the nine selected industry clusters, B&RD has experienced the largest percentage growth since 2010.

Figure 17: Biotechnology & Related Devices Cluster Employment, 2010-2017



Biotechnology & Related Devices Occupations

Santa Barbara's biotechnology & related devices occupations are mostly concentrated in tier 3 (38%) and tier 1 (36%), followed by tier 2 (26%) (Table 12). Since 2010, there was a 1 percent increase in the distribution of tier 2 occupations and a loss in tier 1 occupations. Median hourly earnings for the most common occupations²⁸ in the county range from \$18.36 to \$57.69 and typically require an education level between a high school diploma and a bachelor's degree (Table 13).

Table 12: SB County's Biotechnology & Related Devices Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
36%	26%	38%

²⁸ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 13: Biotechnology & Related Devices Occupations - Wage and Education²⁹

Description	Median Hourly Earnings	Typical Entry-Level Education
Electrical and Electronic Equipment Assemblers	\$18.36	High school diploma or equivalent
Industrial Engineers	\$49.56	Bachelor's degree
Software Developers, Systems Software	\$57.69	Bachelor's degree
General and Operations Managers	\$50.68	Bachelor's degree
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	\$35.78	Bachelor's degree

INFORMATION & COMMUNICATION TECHNOLOGIES (ICT)

Santa Barbara County's information & communication technologies industry cluster has had a significant growth, with the highest average earnings per worker among all clusters and a job concentration that is increasing and is now above the national average for the same cluster.

Recent Employment Trends

Santa Barbara's ICT industry cluster provided 7,903 jobs in 2017 with high average earnings per worker of \$128,894, which are above the county's average and the national average for the same industry cluster of \$135,530.

Industry Concentration

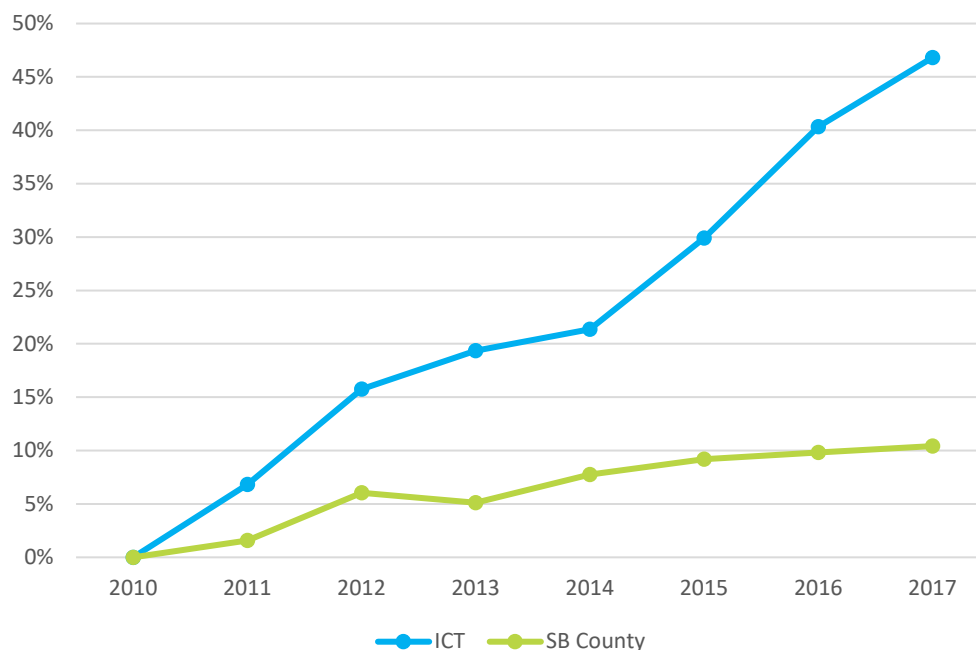
With a location quotient of 1.15, the ICT job concentration in the county is 15% above the national average for the same cluster. Compared to the 2010 location quotient of 0.91, the current job concentration increased by approximately 26% since 2010.

Employment Growth

This cluster has experienced a significant growth of 47%, or a total of 2,520 jobs created since 2010 (Figure 18). Among the nine selected industry clusters, ICT has experienced the second largest percentage growth since 2010.

²⁹ Source: Emsi 2018.1 Class of Worker Data.

Figure 18: Information & Communication Technologies Cluster Employment, 2010-2017



ICT Occupations

The majority of Santa Barbara's ICT occupations are concentrated in tier 1 (62%), followed by tier 2 (23%) and tier 3 (Table 14). Since 2010, the only change was a 1 percent increase in tier 2 occupations and a decrease in tier 3. Median hourly earnings for the most common occupations³⁰ in the county range from \$18.04 to \$57.69 and typically require an education level between a high school diploma and a bachelor's degree (Table 15).

Table 14: Santa Barbara County's ICT Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
62%	23%	15%

³⁰ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 15: ICT Occupations - Wage and Education³¹

Description	Median Hourly Earnings	Typical Entry-Level Education
Systems and Applications Software Developers	\$58-\$47	Bachelor's degree
Computer User Support Specialists	\$26.98	Some college, no degree
General and Operations Managers	\$50.68	Bachelor's degree
Sales Representatives, Services, All Other	\$23.31	High school diploma or equivalent
Customer Service Representatives	\$18.04	High school diploma or equivalent

BUSINESS SERVICES

Santa Barbara's business services industry cluster has been decreasing since 2012, when it reached its peak in the past 10 years in term of employment. Average earnings per worker in this cluster are below the county's average and the cluster's job concentration is decreasing and below the national average for the same cluster.

Recent Employment Trends

Santa Barbara's business services industry cluster provided 10,544 jobs in 2017, or 5% of all county's jobs. Average earnings per worker are \$58,189, which is below the county's average and the national average for the same industry cluster of \$67,651.

Industry Concentration

With a location quotient of 0.60, the business services job concentration in the county is 40% below the national average for the same cluster. Compared to the 2010 location quotient of 0.79, the current job concentration decreased by approximately 24% since 2010.

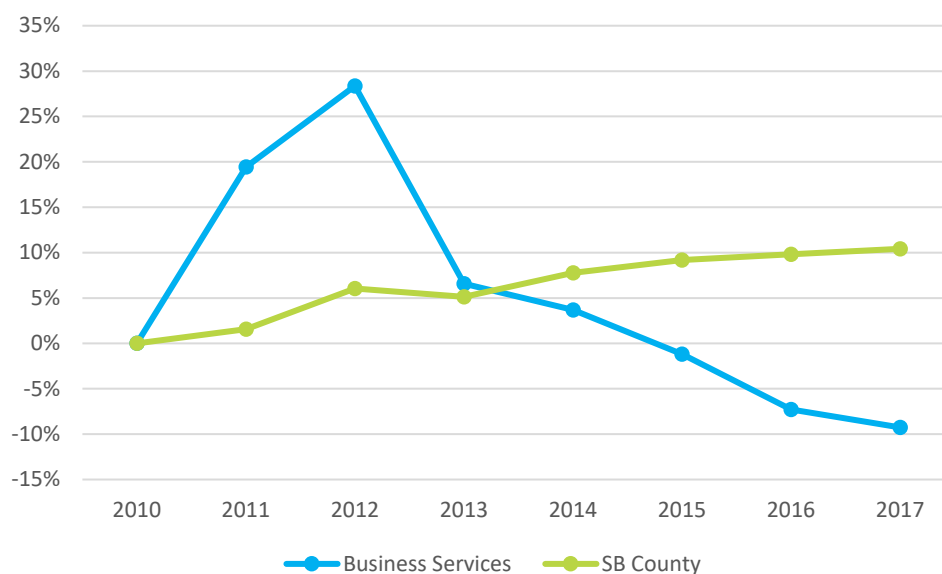
Employment Growth

This cluster has been experiencing a reduction in employment since 2012, the year employment was at its highest in the past 10 years. Since 2010, business services decreased by 9%, or a total of 1,076

³¹ Source: Emsi 2018.1 Class of Worker Data.

jobs lost (Figure 19). Among the nine selected industry clusters, business services experienced the largest job loss since 2010.

Figure 19: Business Services Cluster Employment, 2010-2017



Business Services Occupations

Most of Santa Barbara's business services occupations are concentrated in tier 3 (55%), followed by tier 2 (26%) and tier 1 (19%) (Table 16). Consequently, these occupations have on average low median hourly earnings compared to other industry clusters. Since 2010, this occupational distribution has not changed and for the most common occupations³² median hourly earnings range from \$15.90 to \$50.68 and typically require an education level between a high school diploma, some college, and a bachelor's degree (Table 17). Since 2010, the occupations that experienced the sharpest decline include customer service representatives, telemarketers, material movers, general office clerks, and sales representatives.

Table 16: Santa Barbara County's Business Services Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
19%	26%	55%

³² These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 17: Business Services Occupations - Wage and Education³³

Description	Median Hourly Earnings	Typical Entry-Level Education
Office Clerks, General	\$15.90	High school diploma or equivalent
Accountants and Auditors	\$38.81	Bachelor's degree
Customer Service Representatives	\$18.04	High school diploma or equivalent
Bookkeeping, Accounting, and Auditing Clerks	\$21.90	Some college, no degree
General and Operations Managers	\$50.68	Bachelor's degree

FOOD, BEVERAGE & AGRICULTURE

Santa Barbara's food, beverage & agriculture (FBA) industry cluster provides the largest number of jobs among the nine regional industry clusters and its job concentration is more than eight times higher than the national average for the same cluster. Impressively, employment continues to grow since 2010. Average earnings per worker, however, are below the county's overall average and the national average for the same cluster.

Recent Employment Trends

Santa Barbara's FBA industry cluster provided 23,282 jobs in 2017, or 11% of all county jobs. Average earnings per worker are \$42,853, which is below the county's average and the national average for the same industry cluster of \$44,729.

Industry Concentration

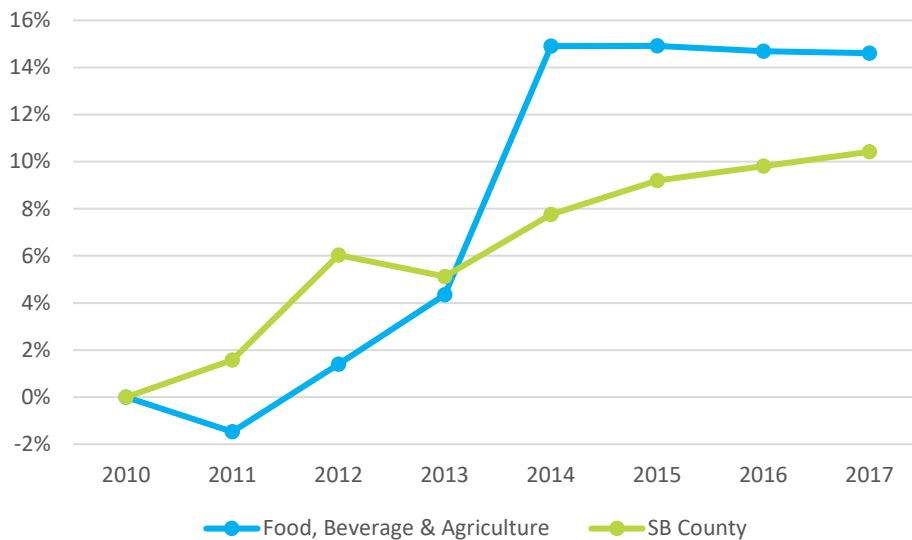
With a location quotient of 8.52, Santa Barbara's FBA job concentration is impressively 752% above the national average for the same cluster. Compared to the 2010 location quotient of 8.45, the current job concentration increased by approximately 1% since 2010.

³³ Source: Emsi 2018.1 Class of Worker Data.

Employment Growth

After a small decline between 2010 to 2011, this cluster has been experiencing strong growth in employment, although growth slowed down in the past three years. Since 2010, FBA increased by 15%, or a total of 2,967 jobs created (Figure 20). Among the nine selected industry clusters, FBA experienced the second largest jobs growth since 2010, only behind healthcare (3,194 jobs created).

Figure 20: FBA Cluster Employment, 2010-2017



Food, Beverage & Agriculture Occupations

The vast majority of Santa Barbara's FBA occupations are concentrated in tier 3 occupations (80%) (Table 18) and consequently this industry cluster provides below average earnings per job (Figure 12). Median hourly earnings for the most common occupations³⁴ range from \$22 to \$51 and typical education level requirements are between a high school diploma, some college, and a bachelor's degree (Table 19).

Table 18: Santa Barbara County's Food, Beverage & Agriculture Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
8%	12%	80%

³⁴ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 19: Food, Beverage & Agriculture Occupations - Wage and Education³⁵

Description	Median Hourly Earnings	Typical Entry-Level Education
Farmers, Ranchers, and Other Agricultural Managers	\$30.58	High school diploma or equivalent
General and Operations Managers	\$50.68	Bachelor's degree
Bookkeeping, Accounting, and Auditing Clerks	\$21.9	Some college, no degree
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	\$22.61	High school diploma or equivalent
Accountants and Auditors	\$38.81	Bachelor's degree

TOURISM & HOSPITALITY

Santa Barbara's tourism & hospitality industry cluster provides a significant portion of the county's employment, has a job concentration that is above the national average, and has shown continuous growth since 2010.

Recent Employment Trends

Santa Barbara's tourism and hospitality industry cluster provided 16,091 jobs in 2017, or 8% of all jobs in the county. Average earnings per worker are \$31,935, which is well below the county's average of \$64,214 and a little above the national average for the same industry cluster of \$30,913.

Industry Concentration

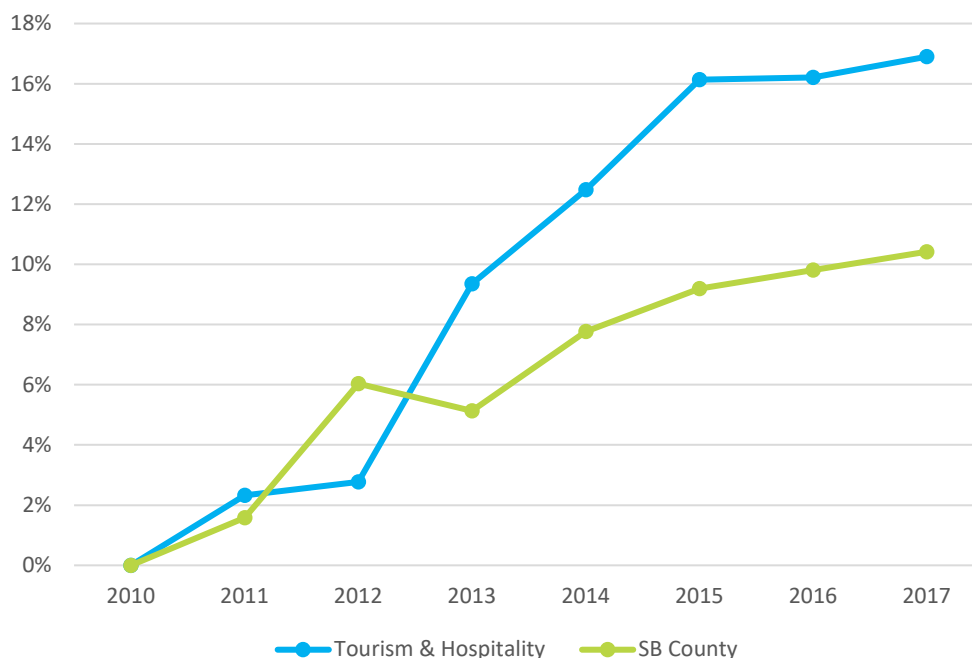
With a location quotient of 1.32, Santa Barbara's tourism & hospitality job concentration is 32% above the national average for the same cluster. This job concentration has not changed since 2010.

Employment Growth

Tourism and hospitality has been experiencing a continuous growth in employment since 2010 (15%), or a total of 2,326 jobs created (Figure 21).

³⁵ Source: Emsi 2018.1 Class of Worker Data.

Figure 21: Tourism & Hospitality Cluster Employment, 2010-2017



Tourism & Hospitality Occupations

Just like with the FBA industry cluster, Santa Barbara's Tourism & Hospitality occupations are mostly concentrated in tier 3 occupations (88%) (Table 20) and consequently offer below average earnings per job (Figure 12). Median hourly earnings for the most common occupations³⁶ range from \$23 to \$51 and typical education level required ranges from a high school diploma, some college, and a bachelor's degree (Table 21).

Table 20: Santa Barbara County's Tourism & Hospitality Occupational Tier Distribution, 2017

Tier 1	Tier 2	Tier 3
5%	7%	88%

³⁶ These occupations were chosen based on the number of jobs in the county and their career path opportunities.

Table 21: Tourism & Hospitality Occupations - Wage and Education³⁷

Description	Median Hourly Earnings	Typical Entry-Level Education
Food Service Managers	\$24.49	High school diploma or equivalent
General and Operations Managers	\$50.68	Bachelor's degree
Bookkeeping, Accounting, and Auditing Clerks	\$21.90	Some college, no degree
Sales Representatives, Services, All Other	\$23.31	High school diploma or equivalent
Lodging Managers	\$26.67	High school diploma or equivalent

³⁷ Source: Emsi 2018.1 Class of Worker Data.

ECONOMY - JOB QUALITY ANALYSIS

Employment trends and economic snapshots are important to analyze job quantity, but they do not provide measures to assess job quality. Training, educational attainment, and experience are often associated with employment opportunity, career growth, and potential earnings. Based on these factors, most occupations can be categorized into one of three occupational tiers that will provide more insight into job quality. The three-tiered system used in this study is largely defined by current wage data and general educational attainment requirements. They are as follows:

Tier 1 Occupations

include managers, professional positions (lawyers, accountants, physicians), and high-skill technical occupations (scientists, programmers, engineers). These are typically high-paying occupations.

Tier 2 Occupations

include sales positions, teachers, librarians, office and administrative positions, as well as manufacturing, operations, and production occupations.

Tier 3 Occupations

include protective services, food service and retail, building and grounds keeping, and personal care positions.

It is important to note that not all occupations can be delineated into one of the three tiers due to wide variation in wage, education, and career pathway. For Santa Barbara County, approximately 2% of occupations were not captured in the 2010 to 2017 occupational tier analysis.

In Santa Barbara County, over half (52.7%) of the occupations fall in tier 3, 27.7% in tier 2, and 19.8% in tier 1. This distribution has been similar in the past years, with a slight decrease in the tier 1 and

Job Quality Analysis Summary

Deteriorating job quality in Santa Barbara.

Tier 3 occupations represent the majority of jobs in the county and since 2010 they have grown at a faster pace than tier 1 and tier 2 jobs.

tier 2 distribution and an increase in the tier 3 distribution (Table 22).

Compared to other regions, the portion of tier 3 occupations is larger in Santa Barbara than in California and in the United States. In California, tier 3 occupations hold approximately 47 percent of the jobs, followed by tier 2 (31%), and tier 1 (23%) occupations. In the United States, tier 3 occupations hold 46 percent of the jobs, followed by tier 2 (33%) and tier 1 occupations (21%).

Why is this Important?

Job quality represents a critical metric in understanding economic sustainability and tier 3 employment typically does not provide enough income for people to afford to live in the County.

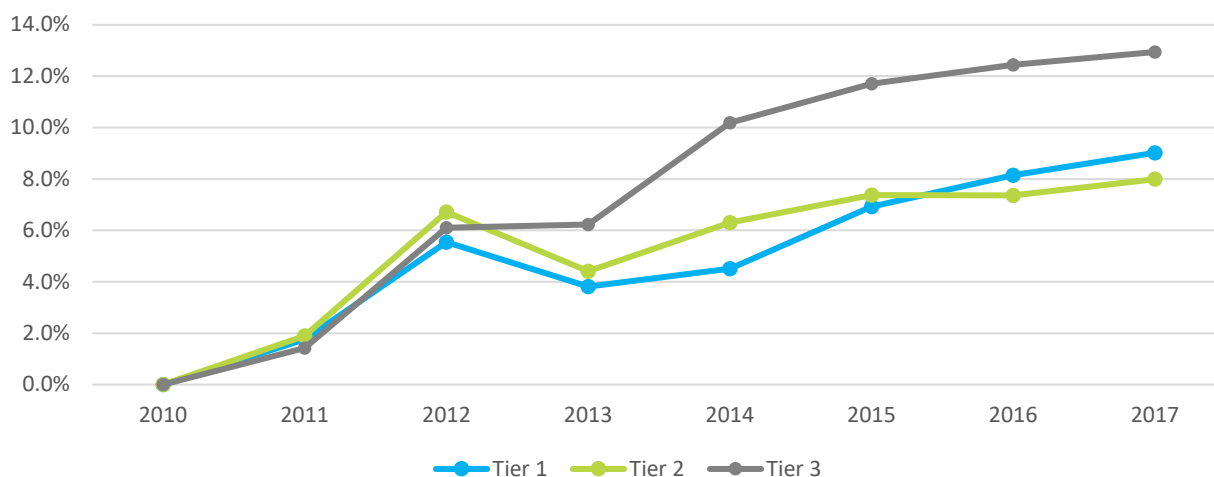
Table 22: Santa Barbara County Occupation Tier Distribution, 2010-2017³⁸

Year	Tier 1	Tier 2	Tier 3
2010	20.1%	28.4%	51.5%
2011	20.1%	28.5%	51.4%
2012	19.9%	28.6%	51.5%
2013	19.8%	28.2%	52.0%
2014	19.4%	28.0%	52.6%
2015	19.6%	27.9%	52.5%
2016	19.7%	27.7%	52.6%
2017	19.8%	27.7%	52.5%

³⁸ Emsi 2018.1 Class of Worker Data.

Looking at the occupational employment growth since 2010, tier 3 occupations have increased at a higher pace (12.9%) than tier 1 (9.0%) and tier 2 (8.0%) occupations and were the only occupations experiencing a continuous annual increase since 2010 in the county (Figure 22).

Figure 22: Santa Barbara County Occupational Tier Growth, 2010-2017³⁹



Nationwide, since 2010 tier 3 jobs increased by 13 percent, tier 1 by 12 percent, and tier 2 by 10 percent. In California, tier 1 jobs experienced the highest increase (19%), followed by tier 2 and tier 3 occupations (17%) (Table 23).

Table 23: Occupational Employment Growth, 2010-2017

	Santa Barbara County	California	United States
Tier 1	9%	19%	12%
Tier 2	8%	17%	10%
Tier 3	13%	17%	13%

³⁹ Ibid.

Overall, Santa Barbara has a large portion of tier 3 occupations and these occupations are growing at a faster rate than both tier 1 and tier 2 occupations. The concentration of tier 3 occupations is 14 percent above the national average and both tier 2 and tier 1 occupations have job concentrations below the national average. To improve job quality, Santa Barbara needs to reverse this trend and increase both the growth rate and distribution of higher paying, tier 1 occupations.

SANTA BARBARA REGIONS

Looking at the three regions in Santa Barbara County, most occupations are in tier 3, followed by tier 2 and tier 1 (Table 24).

The region with the largest portion of tier 1 occupations is the South region with 23 percent, followed by the Central region with 18 percent, and the North region with 15 percent. Not surprisingly, average earnings per job are higher in the South region (\$67,233), followed by the Central (\$64,279) and North (\$58,817) regions.

Regional Job Quality Analysis Summary

Deteriorating job quality is more prevalent in the Central Region. The Central region is slowing the overall growth of tier 1 occupations in the county, with the North and South regions experiencing above average growth and the Central region experiencing a decline.

Why is this Important?

The regions in the county face different economic challenges and while there are some economic and workforce strategies that could be countywide, some should be area-specific.

Table 24: Occupational Tier Distribution by Santa Barbara Region, 2017⁴⁰

	SB North	SB Central	SB South
Tier 1	15%	18%	23%
Tier 2	27%	30%	28%
Tier 3	58%	52%	50%

Since 2010, tier 3 occupations grew at a faster pace than tier 1 and tier 2 occupations in the South and Central regions. In the North region however, tier 1 occupations grew the most at 13.6 percent, followed by tier 3 occupations (13.4%), and tier 2 occupations (11%). This region experienced the

⁴⁰ Emsi 2018.1 Class of Worker Data.

largest growth rates among the three regions and was the only one where tier 1 jobs outpaced the growth of the other tiers (Table 25). In the Central region, where growth rates were the smallest, tier 1 occupations experienced a **loss** of 3 percent, tier 2 a small increase of 1 percent, and tier 3 a larger growth of 11 percent. The South region followed the same trend as the county, except for above average tier 1 job growth (10%) (Table 25).

Overall, occupational job growth was highest in the North region and slowest in the Central region, where tier 1 occupations experienced a decline and tier 2 occupations saw a minimal increase. The Central region is slowing the overall growth of tier 1 occupations, with the North and South regions experiencing above average growth and the Central region experiencing a decline (Table 25).

Table 25: Occupational Employment Growth by Region and County, 2010-2017

	SB North	SB Central	SB South	SB County
Tier 1	14%	-3%	10%	9%
Tier 2	11%	1%	8%	8%
Tier 3	13%	11%	13%	13%

INNOVATION - PATENTS

Innovation—the generation of new products, ideas, or processes—is critical to maintaining a healthy and competitive local economy. The research, design, and finally commercialization of new technologies lead to increased efficiency, productivity, and profitability. Exploiting a region’s innovative and creative strengths ensures that the region remains economically competitive, attracting new businesses, investments, and workers while tapping into new markets both in-region and globally.

Patent activity has been traditionally used to measure a region’s creative activity and how often its residents contribute new ideas to local, national, and global markets. Since 2010, Santa Barbara’s resident inventors have filed over 5,000 patents across several areas including electricity and engineering. The patent activity has been continuously growing since 2010, with a small decline in 2016, but an 11 percent growth since (Figure 23).

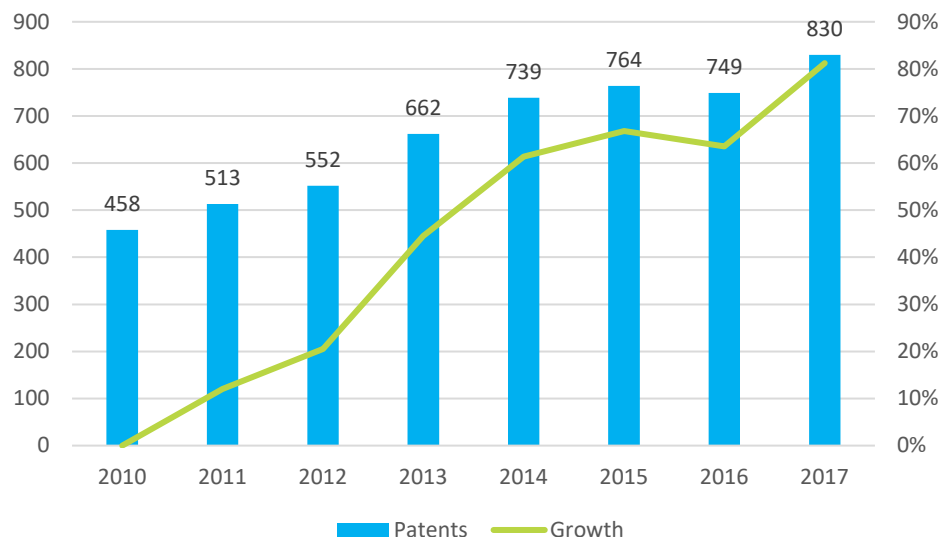
Patent Activity Analysis Summary

Over 5,000 patents across several areas were filed since 2010 in Santa Barbara County, at an average annual growth rate of 9 percent.

Why is this Important?

Patent activity has been traditionally used to measure a region’s creative activity and the generation of new products, ideas, or processes is critical to maintaining a healthy and competitive local economy.

Figure 23: Number of Patents by Santa Barbara County's Resident Inventors, 2010-2017⁴¹



⁴¹ Source: USPTO PatentsView Data Query. Search was done within the inventor database using inventor last known location by city. Inventors from the following 10 cities and communities are included: Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Los Olivos, Santa Barbara, Santa Maria, Solvang, and Summerland.

SPECIAL SECTION - A DEEPER DIVE INTO THREE REGIONAL INDUSTRY ECOSYSTEMS

i. Santa Barbara's Innovation Ecosystem

A strong innovation ecosystem includes research, design, and development activity in a region that ultimately will be commercialized into potential products or services. It also provides some longer-term direction of overall development activity in a given region.

There are currently **3,397 jobs** in Santa Barbara's Innovation Ecosystem,⁴² a 4 percent increase since 2010. The number of jobs in this ecosystem is 31 percent below the national average and the average earnings per job (\$75,442) are also below the national average for the same cluster (\$91,221). Compared to other regions, growth in the Santa Barbara County is well below the state's and the national average (Figure 24).

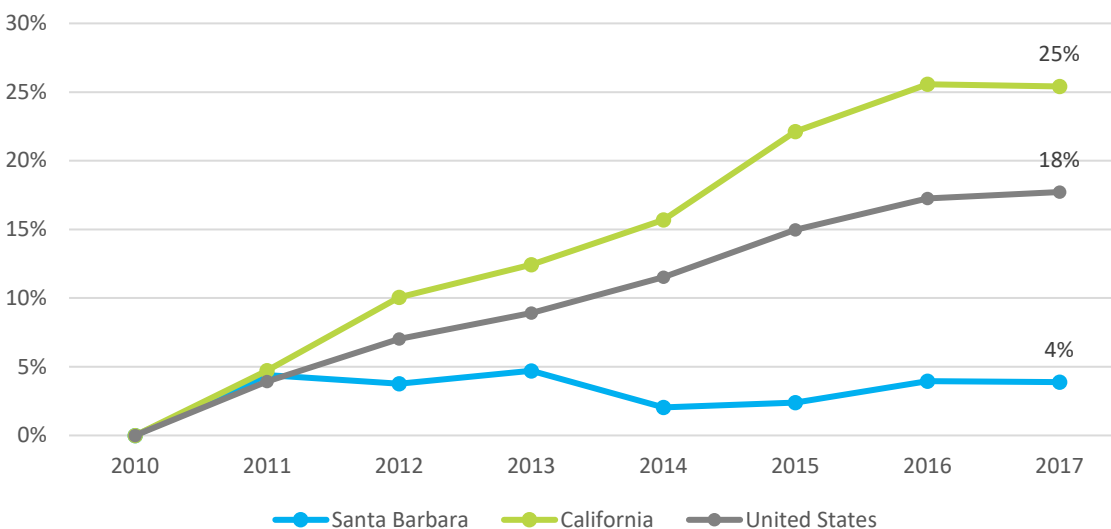
Innovation Ecosystem Analysis Summary

The Innovation ecosystem is growing 4 to 6 times slower in the county than the national and state average. Additionally, the regional disparity of the innovation jobs is significant, with 93 percent of all innovation jobs being in the South region.

Why is this Important?

The innovation ecosystem can provide some long-term direction of the overall capacity for commercializing innovative activity in the county.

Figure 24: Employment Growth in the Innovation Ecosystem by Region, 2010-2017



⁴² Santa Barbara's innovation ecosystem includes industries such as research and development in nanotechnology, biotechnology, physical, engineering, and life sciences, social sciences and humanities, academia, and computer systems design services.

In trying to understand what is driving job growth in the innovation ecosystem in the state and the country and the slow growth rates in Santa Barbara, we looked at employment change by industry since 2010.

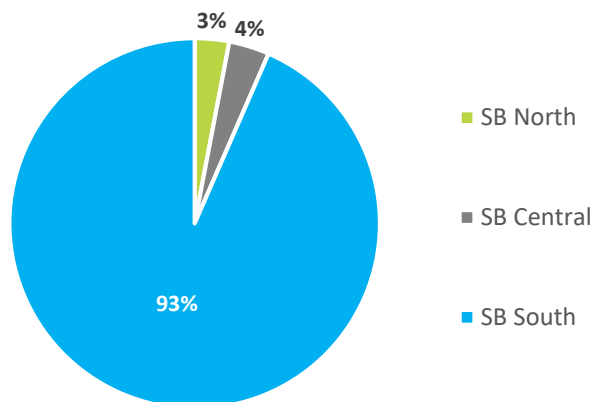
In the United States, all industries grew since 2010 and in California and Santa Barbara, two industries experienced a loss. In California however, the losses were not proportionally significant, while in Santa Barbara they represented a 42 to 55 percent decline since 2010, for the respective industries. For example, the 414 jobs lost in research and development in the physical, engineering, and life sciences (RDPELS) account for about 12 percent of all jobs in the innovation ecosystem and explain the slower growth experienced in the county. On the other hand, a solid increase in the computer systems design services in California and in the United States helped the innovation ecosystem grow in these two regions, while in Santa Barbara the growth in computer systems design services was not large enough to offset the losses in the other two industries (Table 26).

Table 26: Employment Change (number of jobs and % change) by Industry and Region, 2010-2017

Industries	Santa Barbara	California	USA
Computer Systems Design Services	276 (72%)	38,619 (53%)	299,777 (45%)
Research and Development in Nanotechnology	-54 (-55%)	-226 (-6%)	121 (1%)
Research and Development in Biotechnology	43 (47%)	15,131 (70%)	38,585 (28%)
Research and Development in the Physical, Engineering, and Life Sciences	-414 (-42%)	-207 (0%)	6,389 (2%)
Research and Development in the Social Sciences and Humanities	27 (22%)	994 (17%)	3,834 (7%)
Colleges, Universities, and Professional Schools	248 (16%)	32,766 (22%)	189,873 (11%)
Total	127 (4%)	87,076 (25%)	538,580 (18%)

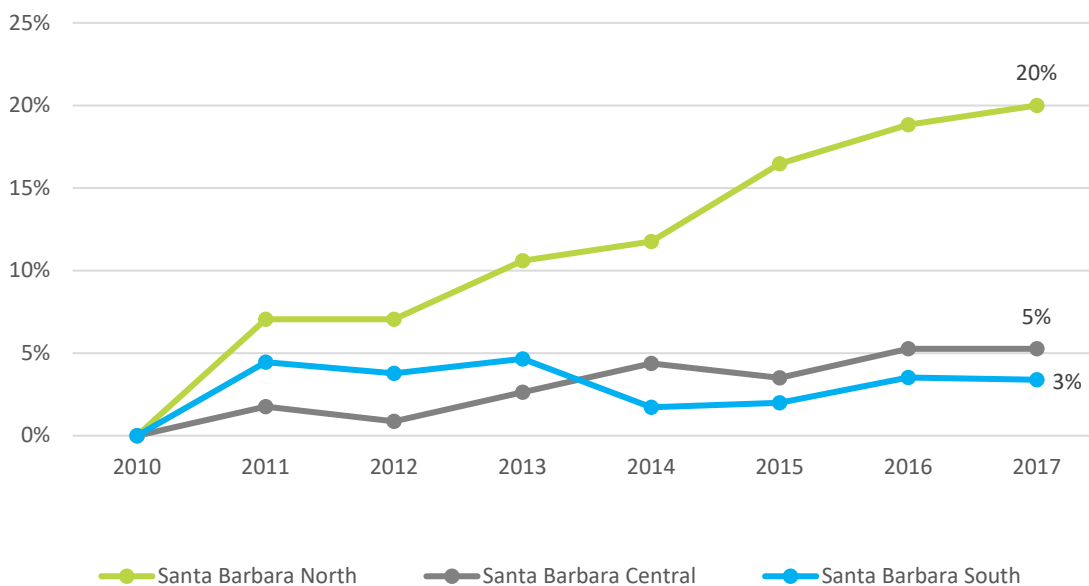
Looking at the different county regions, nearly all innovation jobs are found in the South region (93%), with just 4 percent being in the central region and 3 percent in the North region (Figure 25).

Figure 25: Santa Barbara's Innovation Ecosystem Employment by Region, 2017



Given the employment disparity among regions, employment growth rate since 2010 was actually higher in the North region (20%), followed by the Central (5%) and South regions (3%) (Figure 26).

Figure 26: Santa Barbara's Innovation Ecosystem Employment Change by Region, 2010-2017⁴³



⁴³ Source: Emsi 2018.1 Class of Worker Data.

The majority of jobs in the innovation ecosystem are tier 1 occupations, followed by tier 2 and tier 3 (Table 27). This proportion, however, is changing with tier 2 and tier 3 occupations increasing by 6 and 22 percent respectively, and tier 1 occupations declining by 2 percent since 2010.

Table 27: Change in Occupational Tiers in the Innovation Ecosystem in Santa Barbara County, 2010-2017

Year	Tier 1	Tier 2	Tier 3
2017	50%	25%	25%
2010	53%	25%	22%

In short, the innovation ecosystem has grown since 2010, but this growth is much slower than the state and the national average due to losses in the research and development industries. Since this ecosystem can provide some long-term direction of overall development activity in a given region, it is important to understand why some industries are not growing at the same pace as the state and the country and why its occupational structure is changing with an increase in tier 3 and a decline in tier 1 occupations.

ii. Santa Barbara's Food, Beverage & Agriculture Ecosystem

Santa Barbara's food, beverage & agriculture (FBA) industry cluster provides the largest number of jobs among the nine regional industry clusters and has a job concentration that is **752 percent above** the national average for the same cluster. In 2017, this industry cluster provided a total of 23,282 jobs, or 11% of all county jobs, with average earnings per job of \$42,853, which is below the national average for the same industry of \$44,729 and the overall county's average of \$64,214.

Since 2010, FBA experienced a 15 percent job growth, or a total of 2,967 jobs created, which is higher than the overall county's average of 10 percent. From 2010 to 2011, FBA experienced a small decline, followed by a two-year growth from 2011 to 2013, and a significant increase of 10 percent, or 2,145 jobs created, from 2013 to 2014. Since then, there has been a 0.3 percent decline, or 61 jobs lost. In the United States, FBA grew by 15 percent and in California by 13 percent since 2010 (Figure 27).

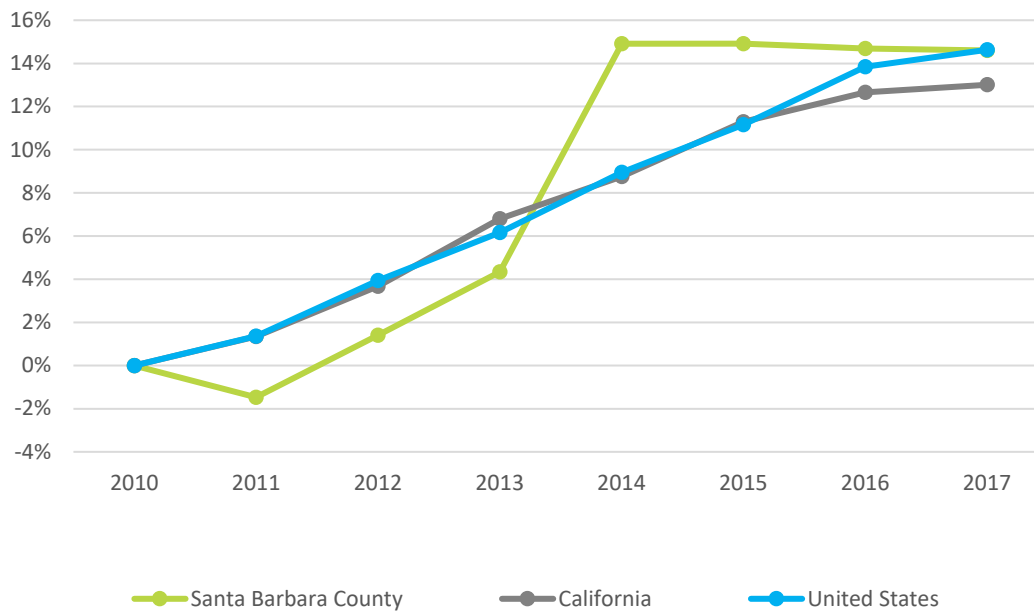
Food, Beverage & Agriculture Analysis

The food, beverage & agriculture industry cluster provides 11 percent of all jobs in the county, has a job concentration that is 752 percent above national average, and a growth rate since 2010 of 15 percent, which is above the county's average of 10 percent.

Why is this Important?

This industry cluster is a significant provider of jobs and is one of its defining industries in the County, with a well above average job concentration.

Figure 27: Change in Food, Beverage & Agriculture Employment by Region, 2010-2017⁴⁴



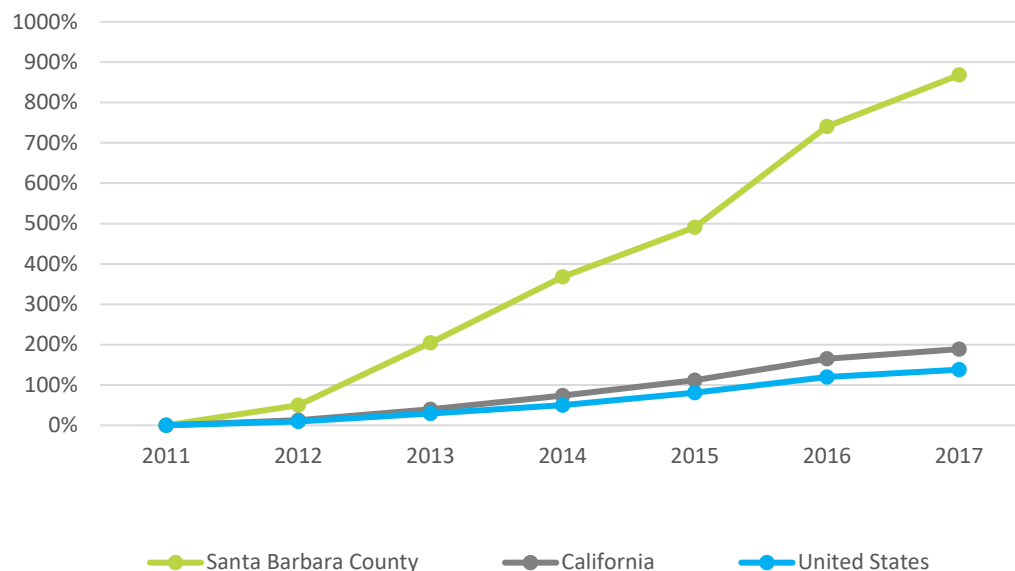
Looking into more detail at the significant job growth in 2014, the industries that created the most jobs were crop production (803), farm labor contractors (687), and wineries (167). Since then, wineries were the only industry that experienced growth with 125 additional jobs created, farm labor contractors lost 8 jobs, and crop production lost 358 jobs. Crop production in Santa Barbara has a job concentration that is 1,372 percent above average, farm labor contractors is 1,338 percent above national average, and wineries is 1,555 percent above national average. Additionally, these three industries export approximately 82 percent of their sales, meaning that they play an important role in the county's economy by bringing dollars from outside the region.

An industry that has shown impressive growth since 2011 is breweries; with less than 10 jobs in 2010, about 22 jobs in 2011, and since then growing by 868 percent or a total of 191 jobs created (Figure 28). Currently, the job concentration in Santa Barbara for this industry is 144 percent above the national average and the number of jobs is expected to continue to grow by approximately 37 percent by 2022.⁴⁵

⁴⁴ Source: Emsi 2018.1 Class of Worker Data.

⁴⁵ Source: Emsi 2018.1 Class of Worker Data.

Figure 28: Change in Breweries Industry Employment by Region, 2011-2017⁴⁶



Overall, Santa Barbara's food, beverage & agriculture industry cluster plays an important role in the county's economy with a well above national average job concentration, over \$1.5 billion in Gross Regional Product (GRP), and 79 percent of its sales coming from outside-the-area businesses.

iii. Santa Barbara's Business Services

There is a total of **10,544 jobs** and 1,284 payrolled-business locations in the business services cluster in Santa Barbara County. Although this cluster still provides a significant number of jobs in the county, it has been continuously declining since 2012, even as California and the United States experience growth. Since 2010, business services decreased by 9 percent (Figure 29).

Business Services Analysis

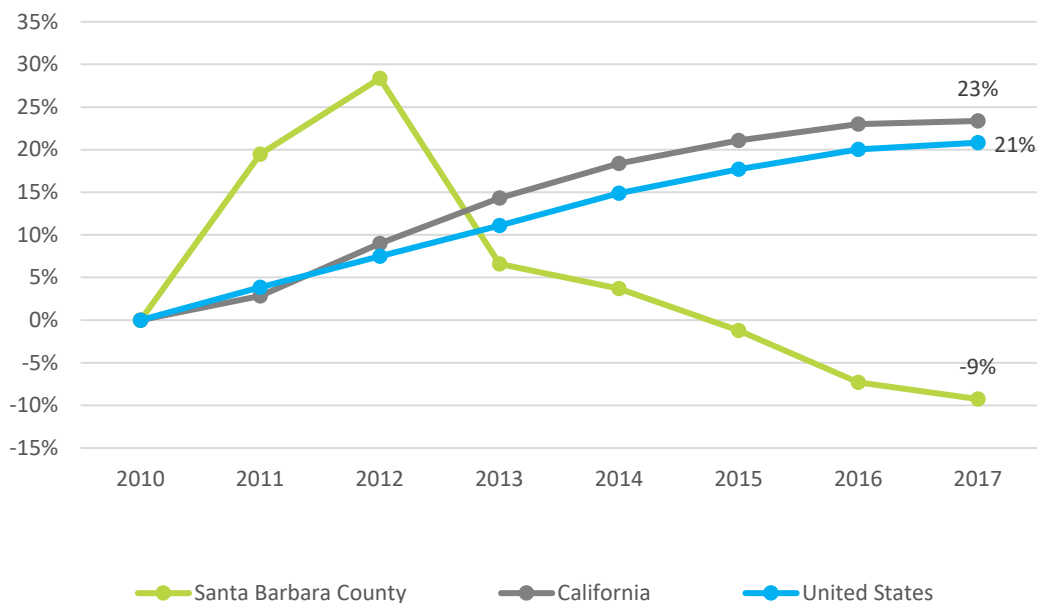
The business services industry cluster has been continuously declining since 2012, even as California and the United States experienced growth.

Why is this Important?

Understanding what is happening in this cluster might help prevent further losses and develop more resiliency to the current job volatility experienced in the cluster.

⁴⁶ Ibid.

Figure 29: Change in Business Services Employment by Region, 2010-2017



In trying to understand what is causing employment to continue to decline in Santa Barbara, we looked at each individual industry in the business services cluster. Interestingly, some of the industries driving growth in California and the United States are declining and driving the decline of this cluster in Santa Barbara. Specifically, the temporary help services industry created the most jobs both in California (130,898 jobs) and the United States (792,604 jobs) since 2010; yet, in Santa Barbara this industry experienced a loss of 384 jobs, or an 18 percent decline since 2010 (Table 28). Other industries experiencing the same trend include telemarketing bureaus and other contact centers, all other professional, scientific, and technical services, and office administrative services (Table 28).

Table 28: Industries Experiencing Losses in SB County and Growth in California and the United States

Industries	Job Loss (2017-2010)	% Loss (2017-2010)
Telemarketing Bureaus and Other Contact Centers	-465	-67%
Temporary Help Services	-384	-18%
All Other Professional, Scientific, and Technical Services	-148	-81%
Office Administrative Services	-135	-16%
Electronic Shopping and Mail-Order Houses	-62	-26%

Employment Placement Agencies	-47	-41%
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From an occupational perspective, the same pattern occurred. Some occupations experienced the largest job creation in California and the United States but have seen a job decline in Santa Barbara County (Table 29). Hand laborers and material movers for example, experienced the largest job growth in the state and the country but have declined in Santa Barbara (Table 29).

Table 29: Occupations Experiencing Losses in SB County and Growth in California and the United States

Occupations	Job Loss (2017-2010)	% Loss (2017-2010)
Customer Service Representatives	-237	-45%
Laborers and Freight, Stock, and Material Movers, Hand	-60	-19%
Office Clerks, General	-54	-10%
Sales Representatives, Services, All Other	-41	-18%
Management Analysts	-40	-23%
Market Research Analysts and Marketing Specialists	-30	-24%

In short, significant job losses in some key industries are driving the continuous decline of the business services industry cluster in Santa Barbara, while in California and the United States these same industries are increasing and driving the overall job growth.

PEOPLE - DEMOGRAPHIC INDICATORS

This section examines Santa Barbara County's population age distribution, growth overtime, and education attainment compared to California and the United States.

AGE DISTRIBUTION

Age distribution in the context of economic development is important to analyze as growth in the working population will determine the availability of labor supply for local businesses. About 23 percent of Santa Barbara's population is under the age of 18; this is the same as the national average and about one percentage point lower than the state's average. Santa Barbara's population is a little younger than the state and the national averages, with 41 percent of Santa Barbara's population being between the ages of 18 and 44, compared to 38 percent and 36 percent in the state and the Country, respectively. On the other hand, 37 percent of Santa Barbara's residents is 45 years of age or older, compared to 38 and 41 percent of the state's and country's population, respectively (Figure 30).

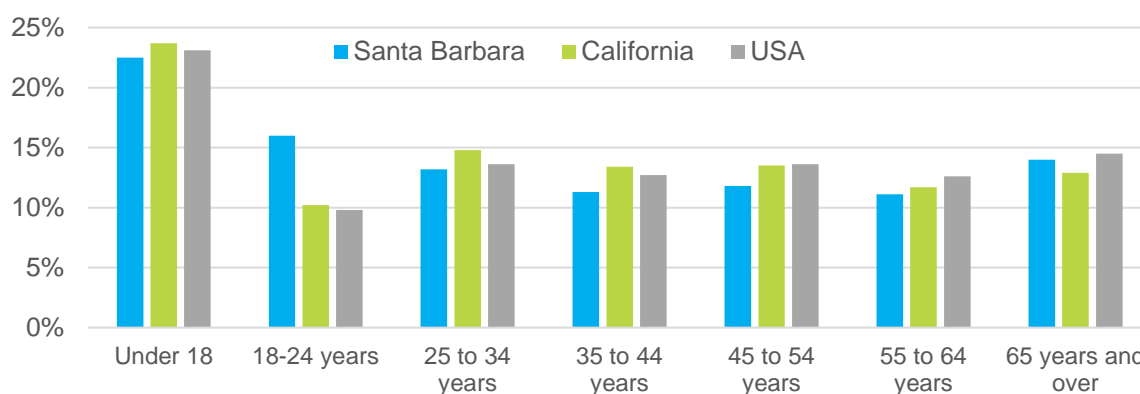
Demographic Indicators Analysis Summary

Educational attainment varies significantly in the county, with attainment levels being much higher in the South region, followed by the Central, and lastly the North region.

Why is this Important?

The county's population growth, age distribution, and educational attainment provide a better understanding of the county's potential workforce, and talent pipeline. These population characteristics have an impact on the regional workforce availability and help us understand where education and training resources should be focused.

Figure 30: Age Distribution, 2016⁴⁷

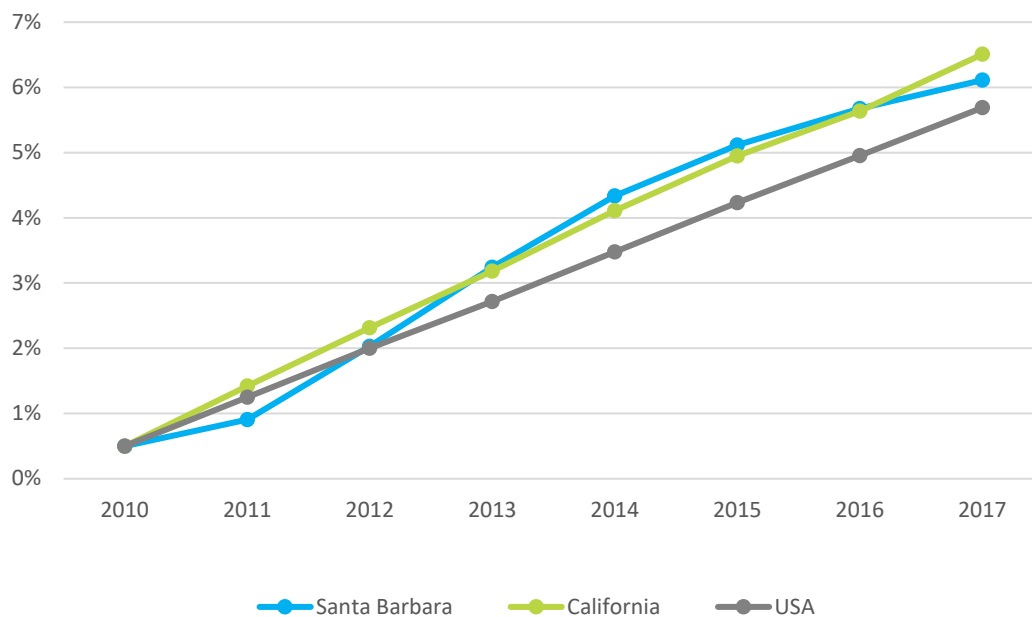


⁴⁷ Source: American Community Survey (ACS) 2016 5-year estimates.

POPULATION GROWTH, 2010-2017

Population has been continuously growing since 2010 in all three regions, with growth rates varying between 6 percent (California and Santa Barbara) and 5 percent (USA).

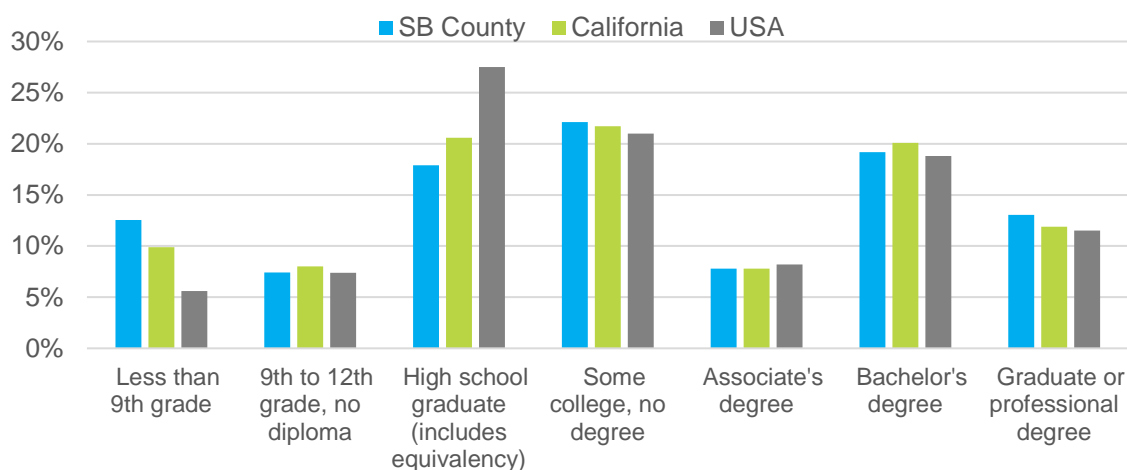
Figure 31: Population Growth, 2010-2017⁴⁷



EDUCATION ATTAINMENT

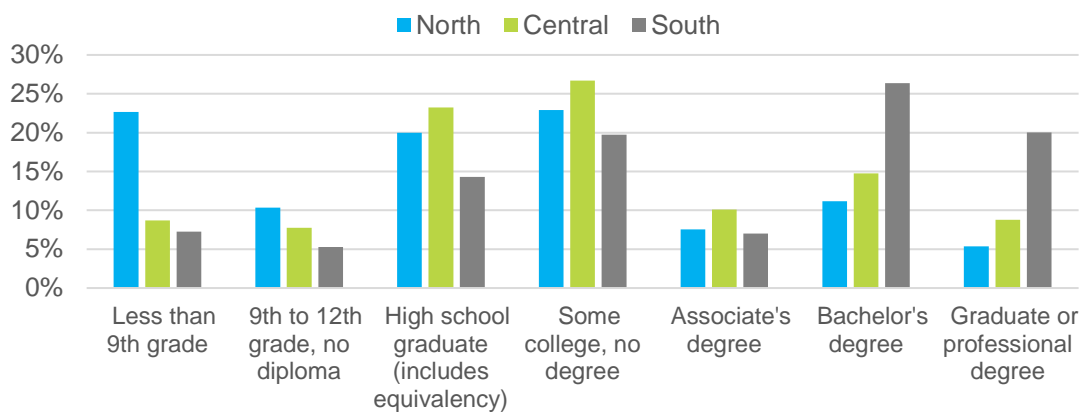
Santa Barbara County has a slightly higher concentration of people with less than 9th grade and with a graduate or professional degree, than the state and the country's average. Approximately 38 percent of Santa Barbara residents have a high-school diploma or less, 30 percent have some college or an Associate degree, and 32 percent hold a bachelor's degree or higher (Figure 32). Compared to other regions, the county's educational attainment levels are very similar to those of the state and a little higher in terms of those holding a bachelor's degree or higher than the national average.

Figure 32: Educational Attainment for the Population 25 Years and Older, 2016⁴⁸



Educational attainment varies by region. In the South region, the percentage of those who hold a bachelor's degree or higher (46%) is more than double that of the North region (16%) and nearly double that of the Central region (24%) (Figure 33).

Figure 33: Educational Attainment for the Population 25 Years and Older, 2016⁴⁹



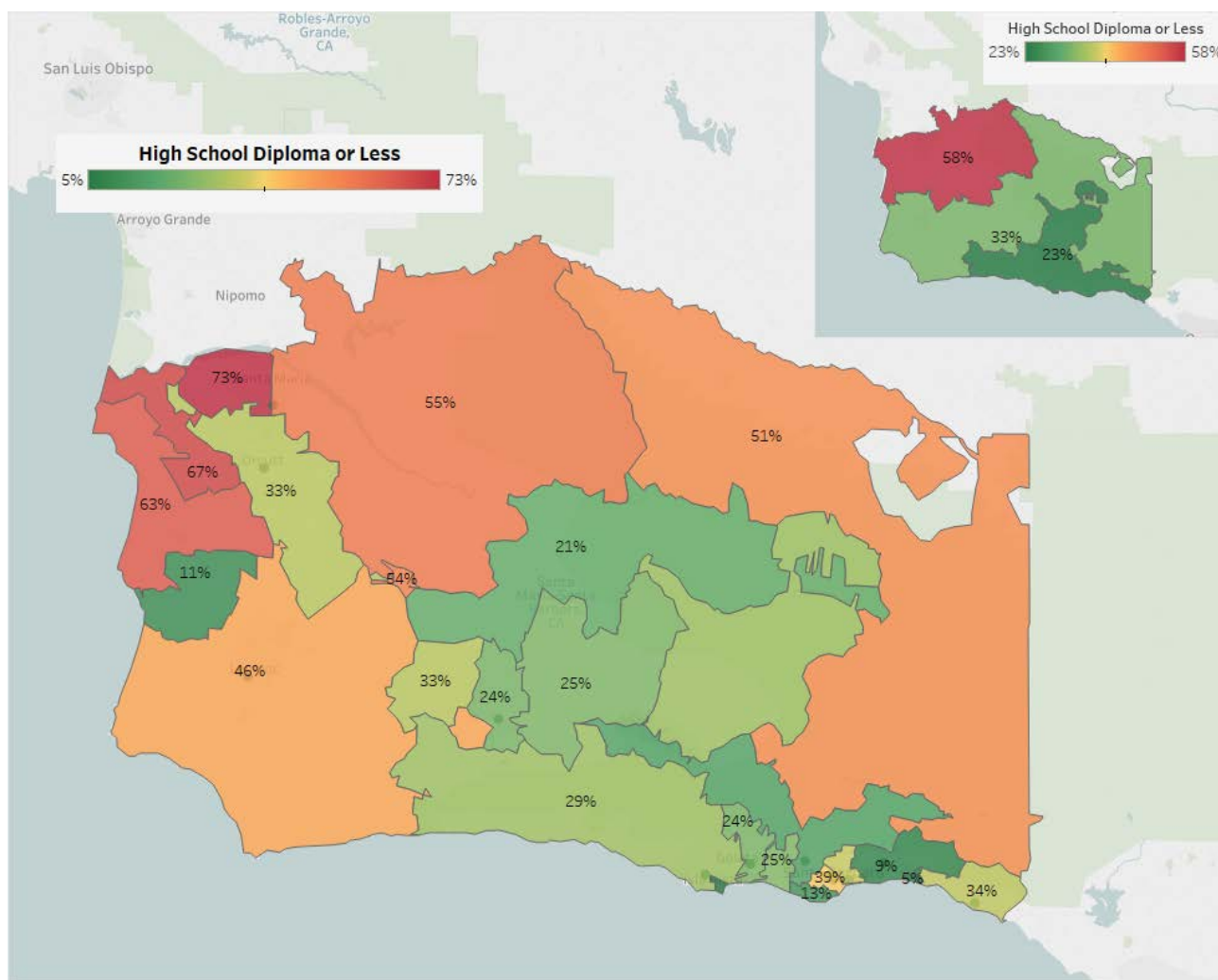
The education level disparity is even more evident on a zip code level. Figure 34 shows the concentration of residents 25 years and older with a high school diploma or less. Concentration of

⁴⁸ Source: American Community Survey (ACS) 2016 5-year estimates.

⁴⁹ Ibid.

this population is higher in the north region ranging from 5 percent in zip 93067 (South region) to 73 percent in 93458 (North region).

Figure 34: Proportion of Population 25 Years and Older with a High School Diploma or Less by Zip Code, 2016⁵⁰



⁵⁰ Source: American Community Survey (ACS) 2016 5-year estimates.

PEOPLE - WORKFORCE ANALYSIS

Workforce analyses are important to identify challenges and opportunities in a region's employment availability, economic vitality, and quality of life. Santa Barbara's resident workforce are those individuals 16 years and older who live in Santa Barbara County and are in the labor force.

In Santa Barbara County, labor force participation for those 16 years and older has remained nearly the same since 2011. In 2016, it was 63.8 percent, which is slightly higher than the state average of 63.4 percent. Looking at different age cohorts, labor force participation is highest for those between the ages of 25 to 54 (Figure 35).

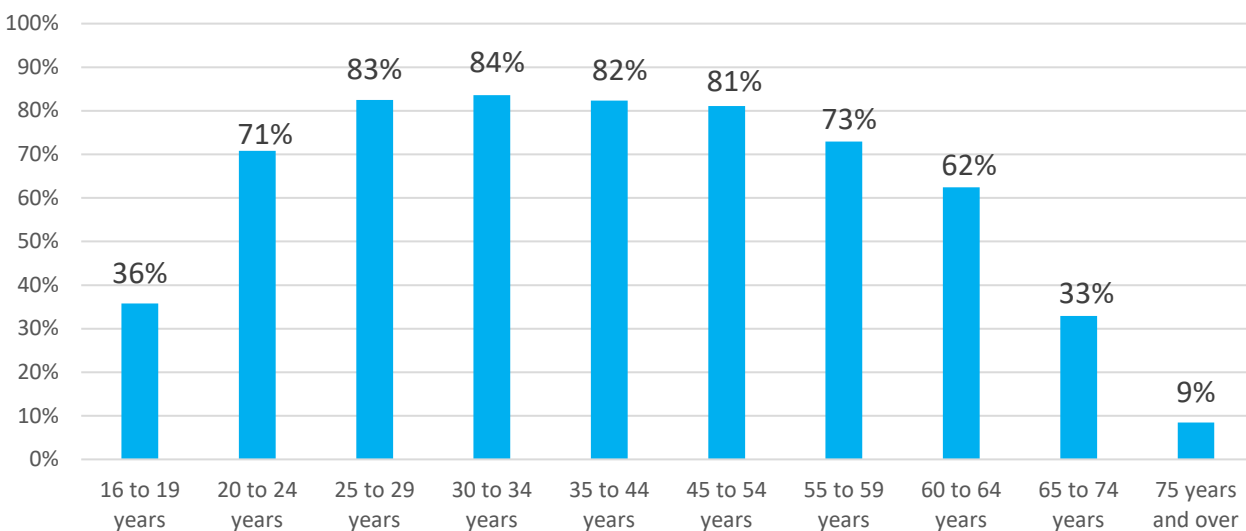
Workforce Analysis Summary

Santa Barbara is exporting talent in high-skill, high pay occupations in management, business, science, and arts and is importing workers in service, sales and office, and production, transportation, and material moving occupations.

Why is this Important?

The net import of service, sales, and production workers highlights the challenges the county faces in providing sufficient middle, to low-tier housing and the net export of management, business, science and arts workers shows the challenge the county faces in providing high-skilled, high-paying jobs to support the talent available in the county.

Figure 35: Labor Force Participation in Santa Barbara County by Age Group, 2016⁵¹



⁵¹ Source: American Community Survey (ACS) 2016 5-year estimates.

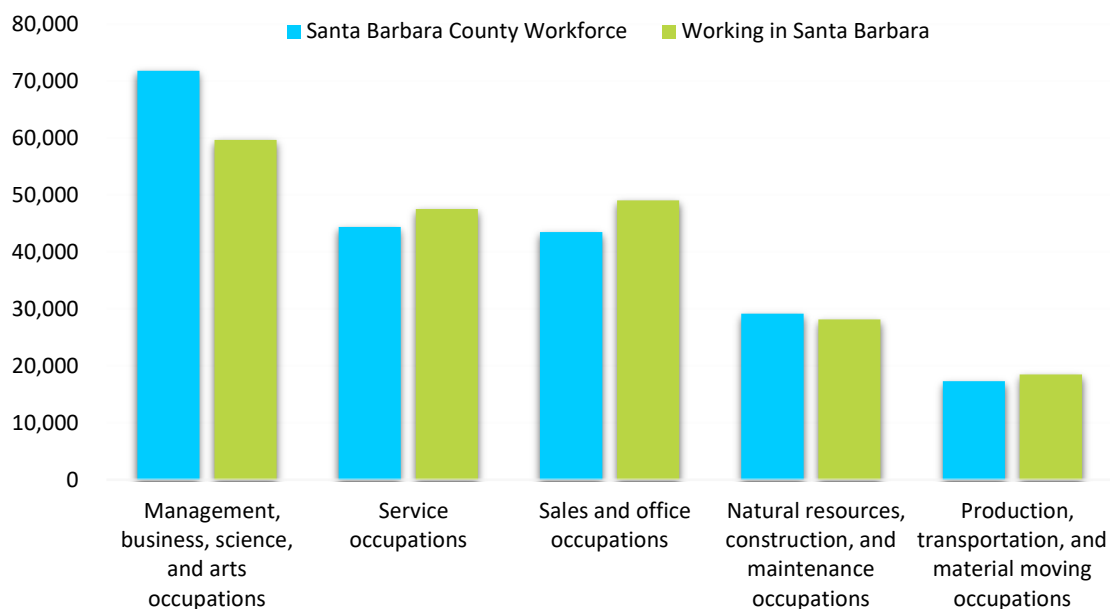
SANTA BARBARA RESIDENT WORKFORCE VS. SANTA BARBARA WORKERS

Santa Barbara’s resident workforce are those individuals 16 years and older who live in Santa Barbara County and are in the labor force. Santa Barbara workers are those who work in Santa Barbara County (a proxy for county employment). Assessing the ratio between these two populations provides a direct measure of how the region’s workforce intersects with the availability of jobs. This analysis has important implications for transportation and commuting, housing, employment opportunities, and ultimately a region’s economic vitality and quality of life.

Santa Barbara County has more individuals in the resident workforce compared to people that are self-employed or work in Santa Barbara firms. There are approximately 206,094 individuals in the resident workforce compared to 202,899 workers in Santa Barbara firms, that is a surplus of 3,195 individuals in the resident-workforce who travel outside the county to go to work.

The largest gap between resident workforce and those employed in the county is in management, business, science, and arts occupations. There are approximately 71,789 individuals in this occupational category, yet only 59,686 jobs in the county, meaning the county is a net exporter of talent in high-skill, high-pay occupations (12,103). On the other hand, the county is a net importer of workers in service occupations (3,188 more jobs than resident-workforce), sales and office occupations (5,567), and production, transportation, and material moving occupations (1,167) (Figure 36).

Figure 36: Resident Workforce vs. Working in Santa Barbara County by Occupations⁵²



⁵² Source: American Community Survey (ACS) 2016 5-year estimates and EMSI 2018 q.1 Class of Worker Data.

Economic development targeting Santa Barbara employers whose workers face daily commutes from outside the county could be beneficial to the county. For example, the net import of workers in service and sales and office occupations highlights the availability of jobs in these occupations and the unavailability of local workforce to fill-in these positions. This on the other hand, highlights two things: the county's challenge in providing middle- to low-tier housing and the opportunity for local educational institutions to train students in these occupational segments. First, providing a larger supply of housing at various price options will support the county's labor demand and workforce across the wage spectrum. Second, educational programs focused on net import occupations, such as services and sales and office occupations, will provide students future job opportunities and employers local skilled-workforce.

COMMUTE ANALYSIS

In this section, we look at the means and average time Santa Barbara workers take to get to work. It is important to look at commuting times and behavior as they have an important impact on residents' quality of life and on the employers' ability to recruit workers to the area.

Most Santa Barbara residents (68%) drive to work alone in a car, truck, or van, 14 percent carpool in a car, truck, or van, 3 percent use public transportation, excluding taxicab, and 15 percent use other means⁵³. Since 2014, the percentage of those who drive alone increased by 1 percent and those who use public transportation decreased by 1 percent. Nevertheless, compared to other regions, a smaller portion of Santa Barbara residents drive alone and a larger portion of residents carpool to work, than in Monterey and San Luis Obispo Counties and compared to the state and national average (Figure 37).

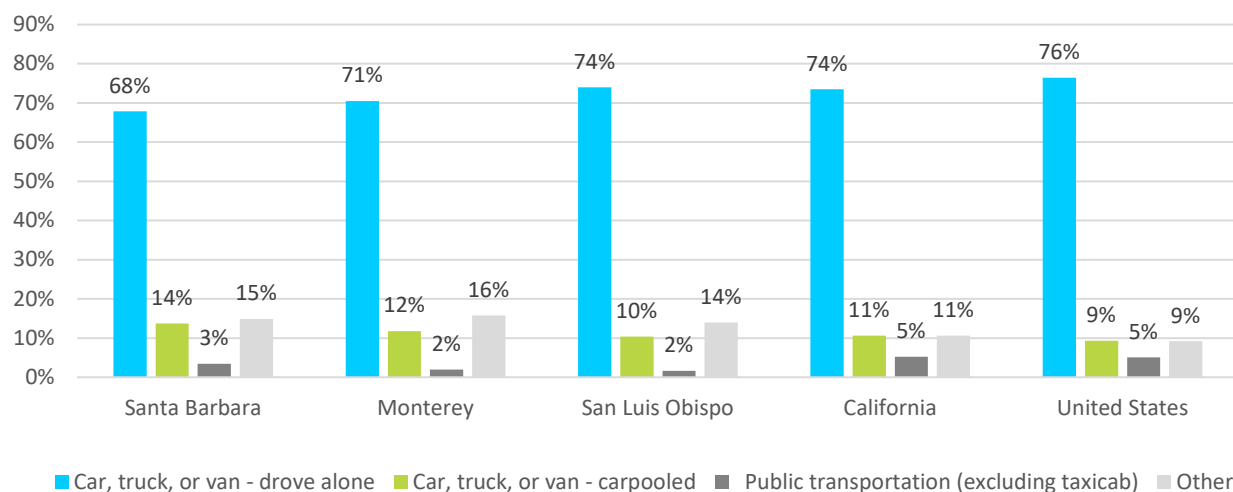
Commute Analysis Summary

Commuting times in Santa Barbara are shorter, fewer residents drive alone to work, and a larger portion carpool to work, compared to Monterey and San Luis Obispo Counties and the state and national average. On average, residents in Santa Barbara take 19.2 minutes to get to work, which is almost 10 minutes less than the state's average of 28.4 minutes.

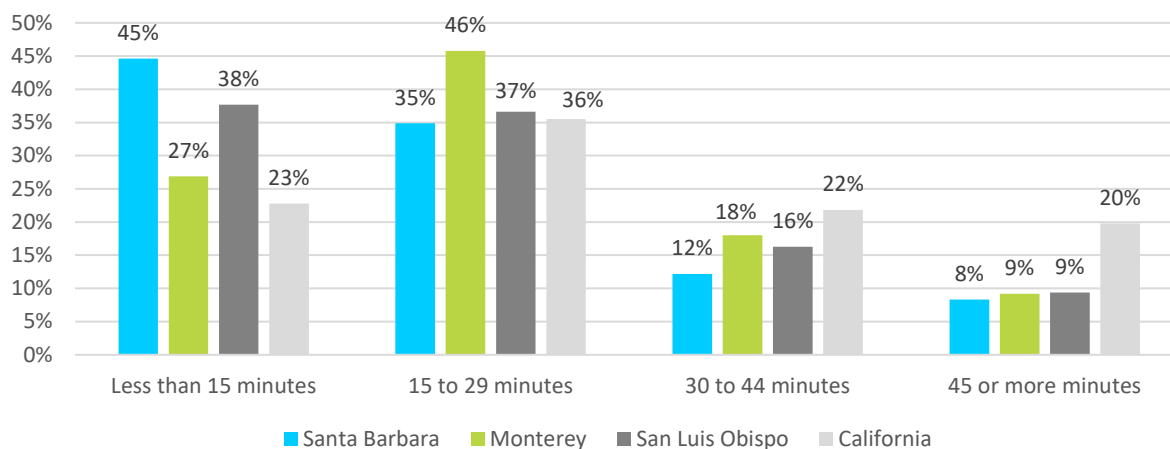
Why is this Important?

Commuting times and behavior have an important impact on residents' quality of life and on the employers' ability to recruit workers to the area.

⁵³ Other includes walking, biking, taxicab or motorcycle, or working from home.

Figure 37: Type of Travel for Workers 16 Years and Older by Region, 2016⁵⁴


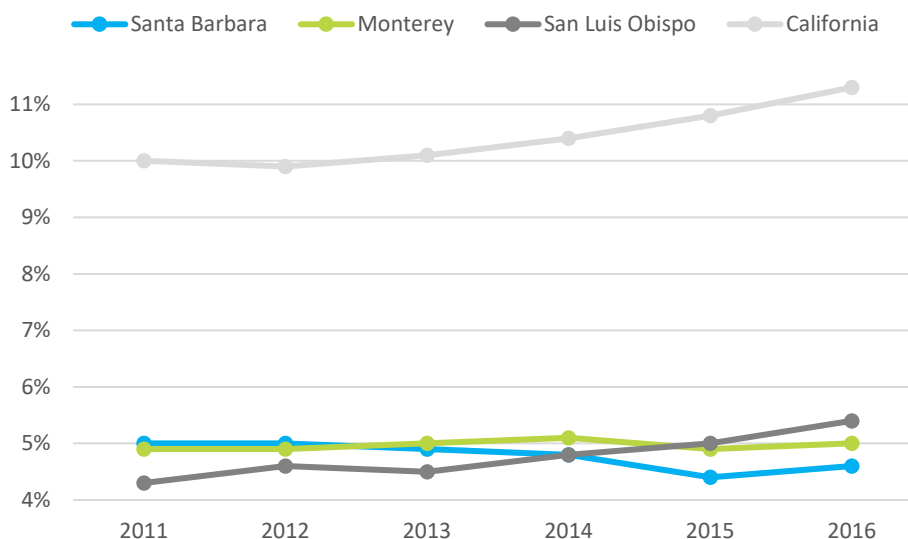
Residents in Santa Barbara County take on average 19.2 minutes to get to work, which is almost 10 minutes less than the state's average of 28.4 minutes, with close to half of the residents (45%) taking less than 15 minutes to get to work. Since 2014, commuting times have declined slightly, with the percentage of those who commute for 30 to 44 minutes and 45 or more minutes decreasing by 1 percent each and those who commute for less than 15 minutes and between 15 to 29 minutes increasing by 1 percent each. Compared to other regions, commuting times are shorter in Santa Barbara, with a larger portion of its workers commuting for only 15 minutes or less to work, compared to Monterey and San Luis Obispo Counties and the state and national average (Figure 38).

Figure 38: Travel Time for Workers 16 Years or Older by Region, 2016⁵⁵

⁵⁴ Source: American Community Survey (ACS) 2016 5-year estimates.

⁵⁵ Source: American Community Survey (ACS) 2016 5-year estimates.

Looking at the super commuters,⁵⁶ approximately 4.6 percent of residents in Santa Barbara drive for an hour or more to go to work, a 0.4% **decrease** since 2011. Compared to other regions, a smaller portion of residents are super commuters in Santa Barbara than in Monterey and San Luis Obispo counties, as well as the state average. Santa Barbara and its neighboring counties have a much smaller portion of super commuters than California and remarkably Santa Barbara was the only region experiencing a decline in the percentage of super commuters, with Monterey, San Luis Obispo and the state all experiencing an increase (Figure 39).

Figure 39: Change in the Percentage of Super Commuters by Region, 2011-2016⁵⁷



⁵⁶ Super commuters are those residents who drive for an hour or more to go to work.

⁵⁷ Ibid.

APPENDIX A: METHODOLOGY

Data compiled in this report were provided by secondary data and primary data through an employer survey.

SECONDARY DATA

Complete employment, population, workforce, and educational attainment statistics datasets for Santa Barbara were defined by county and zip codes.

For this study, the industry clusters were defined using the North American Industry Classification System (NAICS) codes. Complete employment data were compiled from EMSI 2018 q.1 Class of Worker dataset for the Santa Barbara County and its regions defined by zip codes. Complete employment datasets were also drawn directly from the Economic Development Department (EDD) and Bureau of Labor Statistics (BLS).

Population statistics were compiled from the Census Bureau's American Community Survey (ACS) 2016 5-year estimates for the zip codes in Santa Barbara County.

Patent data were compiled using the United States Patent and Trademark Office.

PRIMARY DATA

Survey Design

BW Research worked with the Santa Barbara County Workforce Investment Board to develop a survey instrument to meet all research objectives of this study. In developing the survey instrument, BW Research utilized techniques to overcome known biases in survey research and minimize potential sources of measurement error. BW Research programmed the web survey in house.

Sampling Method

BW Research purchased a database of 6,185 firms in Santa Barbara County both within and outside the defined NAICS industry clusters to serve as the primary sampling databases. Firms were stratified based on industry cluster and size in order to gather data from a representative sampling of firms. The phone survey was supplemented by a web survey distributed by contacts provided by the Workforce Investment Board.

Data Collection

Prior to data collection, BW Research conducted interviewer training and pre-tested the survey instrument to ensure that all words and questions were easily understood by respondents. Telephone interviews were generally conducted from 9:00 am to 4:30 pm Monday through Friday. The data collection period was between April 9 and May 1, 2018.

A Note About Margin of Error and Analysis of Sub-Groups

The overall margin of error for the survey, at the 95% level of confidence, is +/- 8.03% for questions answered by all 146 respondents. It is important to note that questions with low respondents (such as occupational questions based on industry cluster) and results presented separately for each industry cluster will have a margin of error greater than +/- 8.03%, with the exact margin of error dependent on the number of respondents in each sub-group.

APPENDIX B: STUDY AREA

Table 30: Cities and Zip Codes included in each County Region

North	Central	South
Cities: Casmalia, Guadalupe, Orcutt, Santa Maria	Cities: Buellton, Cuyama, Lompoc, Los Alamos, Mission Hills, Santa Ynez, Solvang, Vandenberg, Vandenberg Village	Cities: Carpinteria, Goleta, Isla Vista, Mission Canyon, Montecito, Santa Barbara, Summerland, Toro Canyon
Zip Codes: 93429, 93434, 93454, 93455, 93456, 93457, 93458	Zip Codes: 93254, 93427, 93436, 93437, 93438, 93440, 93441, 93460, 93463, 93464	Zip Codes: 93013, 93014,, 93067, 93101, 93102, 93103, 93105, 93106, 93107, 93108, 93109, 93110, 93111, 93116, 93117, 93118, 93120, 93121, 93130, 93140, 93150, 93160, 93190, 93199

APPENDIX C: TOPLINES



Santa Barbara County WDB
Employers
May 2018
Final Version

Santa Barbara County
Employer Survey (n=146)

.....

Introduction:

Hello, my name is _____. May I please speak to someone involved with planning or staffing at [organization]?

[IF NEITHER A PLANNER OR SOMEONE WITH STAFFING IS AVAILABLE] Can I speak to a decision maker at your location?

Hello, my name is _____ and I'm calling on behalf of **the Santa Barbara Workforce Development Board**, who would value your participation in a brief survey that will be used to develop a stronger response to supporting employers in Santa Barbara County.

(If needed): This survey has been commissioned by the Santa Barbara Workforce Development Board, which is committed to developing the County's workforce.

(If needed): The survey is being conducted by BW Research, an independent research organization, and should take approximately ten minutes of your time.

(If needed): Your individual responses will **not** be published; only aggregate information will be used in the reporting of the survey results.

(If needed): The Workforce Development Board of Santa Barbara County (WDB) develops innovative workforce strategies that help businesses, individuals and industries achieve and sustain economic vitality across all communities in Santa Barbara County. The WDB is a public/private partnership created by the Federal Workforce Investment Act legislation and is staffed by the County of Santa Barbara.

.....

Screenener Questions

- A. Are you involved in staffing or hiring decisions at your firm or organization? (If not, could you please connect me to the appropriate person?)

100.0% Yes
0.0% No
0.0% Not sure

- B. Does your company or organization have one or more locations in Santa Barbara County? [IF YES) How many locations and in which cities?

100.0% Yes
0.0% No
0.0% Not sure

.....

SECTION 1 - Organization-Related Questions

We would like to begin by asking you a few general questions about your firm and your current employees. For this survey, please only answer for your *current business location*. If your firm has other locations, please do not include their data.

1. Including all full-time and part-time employees, how many **permanent and temporary** employees work at your location? (*n=143*)

20.3% 1 to 5 employees
35.7% 6 to 24 employees
27.3% 25 to 99 employees
16.8% 100 or more employees

2. If you currently have [TAKE Q1 #] full-time and part-time **permanent and temporary** employees at your location, how many more or less employees do you expect to have at your location 12 months from now? (*n=141*)

39.7% More
2.8% Fewer
53.9% Same number of employees
3.5% Don't know/ Refused

[If amount differs by 10% or more in either direction, ask:]

Just to confirm, you currently have ____ employees and you expect to have ____ (more/less) employees, for a total of ____ employees 12 months from now.

3. Over the last three years, has your company grown, declined or stayed about the same, in terms of employment at your current location. (n=141)

40.4% Grown
48.2% Stayed the same
8.5% Declined
2.8% Don't know/ Refused

4. What industry or industries best describes the work that your firm is involved in and connected to? (DO NOT READ, ALLOW MORE THAN ONE RESPONSE) (Multiple responses permitted, percentages may sum to more than 100%) (n=140)

25.2% Food, Beverage, & Agriculture
15.1% Healthcare
14.4% Business Support Services
14.4% Retail
7.9% Education
7.2% Tourism
7.2% Non-Profit
4.3% Information & Communication Technologies
4.3% Building & Design
3.6% Energy & the Environment
2.9% Aerospace & Defense
0.7% Biotechnology & Related Devices
2.9% Other
0.7% Don't know/Refused

5. Are your customers primarily local - within Santa Barbara County, regional - within Southern California or the Central Coast, Statewide – within California, national – within the Country, or international - outside the Country? [ALLOW MULTIPLE RESPONSES] (Multiple responses permitted, percentages may sum to more than 100%) (n=141)

80.9% Local - Santa Barbara County
29.8% Regional - within Southern California or the Central Coast
19.1% Statewide - Within California
17.7% National - Within the United States
12.8% International - Outside the United States
0.7% Don't know/ Refused

SECTION 2 – Technology Profile

Next, we would like to ask about the role of technology at [FIRM NAME].

6. Is your firm focused on developing or supporting the development of new technology, is the technology you are using largely established, or do you use both emerging and established technologies? (*n=140*)

42.1% Both, we use both emerging and established technologies

39.3% Technology is largely established

7.9% Neither

4.3% Technology is being developed

6.4% Don't know/ Refused

[IF Q6= "Technology is being developed" OR "Both, we use both emerging and established technologies" ASK Q7 OTHERWISE SKIP]

7. Please identify the areas of technology that are most important to your firm. (DO NOT READ, ALLOW MORE THAN ONE RESPONSE) (*Multiple responses permitted, percentages may sum to more than 100%*) (*n=65*)

31.3% Digital database/communication technologies

21.9% Smart grid and/or energy efficiency

21.9% New Materials

10.9% Solar and/or photovoltaic industry

9.4% Biotechnology and related devices

6.3% Agriculture research

6.3% Biofuels and biomaterials

3.1% Nanotechnologies

4.7% Other

31.3% Don't know/ Refused

SECTION 3 – General Hiring Challenges & Assessment

Now, we would like to ask questions about employment and hiring people for your current location.

8. Thinking about people that work at your current location, how much difficulty does your company have finding qualified applicants who meet the organization's hiring standards? (*n*=139)

28.1% Little to no difficulty
49.6% Some difficulty
20.9% Great difficulty
1.4% Don't know/ Refused

9. When a non entry-level position becomes available in your firm, do you more often promote from within, hire from outside the company, or is it an even split between the two? (*n*=139)

52.5% Even split (50-50 promote & outside)
33.8% Promote from within
10.8% Recruit from outside
2.9% Don't know/ Refused

10. How often does your business recruit individuals from outside Santa Barbara County? (*n*=139)

2.2% Always (75% to 100% of the time)
6.5% Frequently (50% to 74% of the time)
15.8% Sometimes (25% to 49% of the time)
41.7% Rarely (1% to 24% of the time)
30.2% Never (0% of the time)
3.6% Don't know/ Refused

11. Now, we're going to present a list of issues facing the region's workforce in the coming years. Please tell us how much difficulty your organization faces in addressing each. (*n*=138)

Here's the (first/next) one _____ (READ ITEM): Please tell us whether your organization has no difficulty, some difficulty, or great difficulty in dealing with this issue.

	<u>No difficulty</u>	<u>Some difficulty</u>	<u>Great difficulty</u>	<u>Don't know/ Refused</u>
A. Providing training programs so current employees are productive and stay up-to-date on changing technology and industry requirements	67.4%	26.8%	2.9%	2.9%
B. Providing training opportunities so current employees are able to advance within the organization	68.1%	24.6%	5.1%	2.2%
C. Recruiting entry-level employees with appropriate training and education	42.0%	42.0%	14.5%	1.4%

D. Recruiting non-entry level employees with adequate skills and industry experience	29.7%	44.9%	19.6%	5.8%
E. Recruiting employees who can find adequate housing within a reasonable distance from work	29.0%	32.6%	31.2%	7.2%
F. Retaining valuable employees who want to purchase housing within a reasonable distance from work	23.2%	30.4%	31.9%	14.5%
G. Retaining valuable employees who could move up within the organization	46.4%	41.3%	8.7%	3.6%
H. Replacing retired workers with qualified employees	34.8%	37.0%	15.2%	13.0%

12. Are there any occupations or specific skills that you are having difficulty finding qualified applicants for, if yes could you identify those occupations and/or skills? (*n*=138)

46.4% Yes
49.3% No
4.3% Don't know/Refused

SECTION 4 – Economic Development and Innovation Assessment

Next, we want to ask about Santa Barbara County as a place to do business for firms like yours.

13. How would you rate Santa Barbara County as a place to do business? (*n*=138)

20.3% Excellent
40.6% Good
27.5% Fair
7.2% Poor
3.6% Very poor
0.7% Don't know/ Refused

Now, we want to ask more specifically about starting a new business,

14. How would you rate Santa Barbara County as a place to start a new business? (*n*=138)

8.0% Excellent
23.2% Good
29.0% Fair
18.1% Poor
9.4% Very poor
12.3% Don't know/ Refused

15. Please tell us how satisfied your company is with the following issues and attributes regarding the business climate in Santa Barbara County. (n=136)

Is your company satisfied, dissatisfied, or neither satisfied nor dissatisfied with Santa Barbara County's: _____? (GET ANSWER AND THEN ASK:) Would that be very (satisfied/dissatisfied) or somewhat (satisfied/dissatisfied)?

	<u>Very Satisfied</u>	<u>Somewhat Satisfied</u>	<u>Neither Satisfied nor Dissatisfied</u>	<u>Somewhat Dissatisfied</u>	<u>Very Dissatisfied</u>	<u>Don't know/Refused</u>
A. Access to capital	22.1%	33.1%	13.2%	7.4%	6.6%	17.6%
B. Access to clients and customers	47.1%	36.0%	11.0%	3.7%	0.0%	2.2%
C. Ability to recruit experienced, high-level talent	17.6%	32.4%	13.2%	22.8%	8.8%	5.1%
D. Ability to find qualified and competent entry to mid-level workers	18.4%	41.9%	9.6%	17.6%	8.8%	3.7%
E. Access to relevant vendors and suppliers	39.7%	31.6%	10.3%	8.8%	4.4%	5.1%
F. Ability to retain valued employees over time	27.2%	48.5%	6.6%	10.3%	5.9%	1.5%
G. Access to other firms that are working on products or services that you can partner with	22.1%	31.6%	23.5%	8.1%	0.7%	14.0%
H. Education and training institutions that help develop talent related to your industry	27.9%	34.6%	14.0%	11.8%	5.1%	6.6%
I. Access to research and related institutions that are doing innovative work that is relevant to your industry	23.5%	25.7%	28.7%	7.4%	3.7%	11.0%
J. Access to professional and consulting services that can support or assist your business	25.7%	41.2%	17.6%	8.1%	1.5%	5.9%

16. Are there any other issues or concerns that we have not discussed today, that are currently impacting your business?

Open-ended, can provide verbatim responses

17. Is there anything else you feel we should know to better help your company and industry succeed in Santa Barbara County?

Open-ended, can provide verbatim responses

Before we finish, we would like to ask you a general question and verify your contact information.

SECTION 5 – Local WIB Awareness and Interest Profile

18. Before this interview, had you heard of the Santa Barbara County Workforce Development Board or either of Santa Barbara's Workforce Resource Centers? (*n=135*)

50.4% Yes
48.9% No
0.7% Don't know/ Refused

[IF Q18 = "No" OR "Don't know/ Refused" SKIP TO Q20]

19. Have you had any experience evaluating job-seekers from any of the Santa Barbara County Workforce Resource Centers or from the Workforce Development Board? (*n=68*)

29.4% Yes
67.6% No
2.9% Don't know/ Refused

[IF Q19 = "No" OR "Don't know/ Refused" SKIP TO Q21]

20. Have you hired any job-seekers from Santa Barbara's Workforce Development Board or any of the Workforce Resource Centers? (*n=20*)

40.0% Yes
40.0% No
20.0% Not sure
0.0% Don't know/ Refused

Before we finish, we would like to ask you a general question and verify your contact information.

21. Are you interested in receiving information from the Santa Barbara Workforce Development Board, including the findings of this research and how to stay engaged in the region's planning to prepare qualified, productive workers for our local economy? (*n*=135)

63.0% Yes

34.1% No

3.0% Don't know/ Refused

22. May we contact you in the future to ask permission to use some of the quotes that you provided in a document to be published? (*n*=135)

70.4% Yes

27.4% No

2.2% Don't know/ Refused

Thank you for completing the survey. Since it sometimes becomes necessary for the project manager to call back and confirm responses to certain questions, I would like to verify your contact information.

A. First and Last Name of Respondent _____

B. Position of Respondent _____

C. Phone of Respondent _____

D. Email of Respondent _____

E. Name of Company _____

F. Company Address (including City) _____

Those are all the questions I have.
Thank you very much for your time.

G. Date of Interview _____

H. Time of Interview _____

I. Name of Interviewer _____

J. County _____

APPENDIX D: INDUSTRY CLUSTER DEFINITIONS

Aerospace and Defense	
NAICS	Definition
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
336411	Aircraft Manufacturing
336412	Aircraft Engine and Engine Parts Manufacturing
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing
336414	Guided Missile and Space Vehicle Manufacturing
336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing

Biotechnology & Related Devices	
NAICS	Definition
325193	Ethyl Alcohol Manufacturing
325199	All Other Basic Organic Chemical Manufacturing
325220	Artificial and Synthetic Fibers and Filaments Manufacturing
325311	Nitrogenous Fertilizer Manufacturing
325312	Phosphatic Fertilizer Manufacturing
325314	Fertilizer (Mixing Only) Manufacturing
325320	Pesticide and Other Agricultural Chemical Manufacturing
325411	Medicinal and Botanical Manufacturing
325412	Pharmaceutical Preparation Manufacturing
325413	In-Vitro Diagnostic Substance Manufacturing
333314	Optical Instrument and Lens Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
334519	Other Measuring and Controlling Device Manufacturing
339112	Surgical and Medical Instrument Manufacturing
339113	Surgical Appliance and Supplies Manufacturing

339114	Dental Equipment and Supplies Manufacturing
339115	Ophthalmic Goods Manufacturing
339116	Dental Laboratories
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers
424210	Drugs and Druggists' Sundries Merchant Wholesalers
541714	Research and Development in Biotechnology (except Nanobiotechnology)

Building and Design	
NAICS	Definition
236115	New Single-Family Housing Construction (except For-Sale Builders)
236116	New Multifamily Housing Construction (except For-Sale Builders)
236117	New Housing For-Sale Builders
236118	Residential Remodelers
236210	Industrial Building Construction
236220	Commercial and Institutional Building Construction
237110	Water and Sewer Line and Related Structures Construction
237120	Oil and Gas Pipeline and Related Structures Construction
237130	Power and Communication Line and Related Structures Construction
237210	Land Subdivision
237310	Highway, Street, and Bridge Construction
237990	Other Heavy and Civil Engineering Construction
238110	Poured Concrete Foundation and Structure Contractors
238120	Structural Steel and Precast Concrete Contractors
238130	Framing Contractors
238140	Masonry Contractors
238150	Glass and Glazing Contractors
238160	Roofing Contractors
238170	Siding Contractors
238190	Other Foundation, Structure, and Building Exterior Contractors
238210	Electrical Contractors and Other Wiring Installation Contractors
238220	Plumbing, Heating, and Air-Conditioning Contractors
238290	Other Building Equipment Contractors
238310	Drywall and Insulation Contractors
238320	Painting and Wall Covering Contractors
238330	Flooring Contractors
238340	Tile and Terrazzo Contractors
238350	Finish Carpentry Contractors

238390	Other Building Finishing Contractors
238910	Site Preparation Contractors
238990	All Other Specialty Trade Contractors
327320	Ready-Mix Concrete Manufacturing
327390	Other Concrete Product Manufacturing
332322	Sheet Metal Work Manufacturing
337212	Custom Architectural Woodwork and Millwork Manufacturing
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers
423330	Roofing, Siding, and Insulation Material Merchant Wholesalers
423390	Other Construction Material Merchant Wholesalers
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers
423730	Warm Air Heating and Air-Conditioning Equipment and Supplies Merchant Wholesalers
423740	Refrigeration Equipment and Supplies Merchant Wholesalers
444110	Home Centers
444120	Paint and Wallpaper Stores
444190	Other Building Material Dealers
541310	Architectural Services
541320	Landscape Architectural Services
541330	Engineering Services
541340	Drafting Services
541350	Building Inspection Services
541370	Surveying and Mapping (except Geophysical) Services
541410	Interior Design Services

Business Services	
NAICS	Definition
425110	Business to Business Electronic Markets
425120	Wholesale Trade Agents and Brokers
454110	Electronic Shopping and Mail-Order Houses
541110	Offices of Lawyers
541199	All Other Legal Services
541211	Offices of Certified Public Accountants
541213	Tax Preparation Services
541214	Payroll Services
541219	Other Accounting Services

541430	Graphic Design Services
541611	Administrative Management and General Management Consulting Services
541612	Human Resources Consulting Services
541613	Marketing Consulting Services
541614	Process, Physical Distribution, and Logistics Consulting Services
541618	Other Management Consulting Services
541810	Advertising Agencies
541820	Public Relations Agencies
541830	Media Buying Agencies
541840	Media Representatives
541850	Outdoor Advertising
541860	Direct Mail Advertising
541870	Advertising Material Distribution Services
541890	Other Services Related to Advertising
541910	Marketing Research and Public Opinion Polling
541930	Translation and Interpretation Services
541990	All Other Professional, Scientific, and Technical Services
561110	Office Administrative Services
561210	Facilities Support Services
561311	Employment Placement Agencies
561312	Executive Search Services
561320	Temporary Help Services
561330	Professional Employer Organizations
561410	Document Preparation Services
561421	Telephone Answering Services
561422	Telemarketing Bureaus and Other Contact Centers
561431	Private Mail Centers
561439	Other Business Service Centers (including Copy Shops)
561440	Collection Agencies
561492	Court Reporting and Stenotype Services
561499	All Other Business Support Services
561710	Exterminating and Pest Control Services
561720	Janitorial Services
561730	Landscaping Services
561740	Carpet and Upholstery Cleaning Services
561790	Other Services to Buildings and Dwellings
561910	Packaging and Labeling Services
561920	Convention and Trade Show Organizers

561990	All Other Support Services
--------	----------------------------

Energy and Environment	
NAICS	Definition
211120	Crude Petroleum Extraction
211130	Natural Gas Extraction
213111	Drilling Oil and Gas Wells
213112	Support Activities for Oil and Gas Operations
221112	Fossil Fuel Electric Power Generation
221117	Biomass Electric Power Generation
221118	Other Electric Power Generation
221210	Natural Gas Distribution
324110	Petroleum Refineries
324199	All Other Petroleum and Coal Products Manufacturing
325110	Petrochemical Manufacturing
332410	Power Boiler and Heat Exchanger Manufacturing
332420	Metal Tank (Heavy Gauge) Manufacturing
333131	Mining Machinery and Equipment Manufacturing
333132	Oil and Gas Field Machinery and Equipment Manufacturing
333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
333611	Turbine and Turbine Generator Set Units Manufacturing
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
334514	Totalizing Fluid Meter and Counting Device Manufacturing
541360	Geophysical Surveying and Mapping Services
541380	Testing Laboratories
541420	Industrial Design Services
541620	Environmental Consulting Services
541690	Other Scientific and Technical Consulting Services
562112	Hazardous Waste Collection
562119	Other Waste Collection
562211	Hazardous Waste Treatment and Disposal
562213	Solid Waste Combustors and Incinerators
562219	Other Nonhazardous Waste Treatment and Disposal
562920	Materials Recovery Facilities
562998	All Other Miscellaneous Waste Management Services

Food, Beverage & Agriculture	
NAICS	Definition
111000	Crop Production
112000	Animal Production
114112	Shellfish Fishing
115112	Soil Preparation, Planting, and Cultivating
115113	Crop Harvesting, Primarily by Machine
115114	Postharvest Crop Activities (except Cotton Ginning)
115115	Farm Labor Contractors and Crew Leaders
115116	Farm Management Services
115210	Support Activities for Animal Production
311411	Frozen Fruit, Juice, and Vegetable Manufacturing
311421	Fruit and Vegetable Canning
311811	Retail Bakeries
311812	Commercial Bakeries
311830	Tortilla Manufacturing
311919	Other Snack Food Manufacturing
311920	Coffee and Tea Manufacturing
311999	All Other Miscellaneous Food Manufacturing
312111	Soft Drink Manufacturing
312112	Bottled Water Manufacturing
312120	Breweries
312130	Wineries
312140	Distilleries

Healthcare	
NAICS	Definition
621111	Offices of Physicians (except Mental Health Specialists)
621112	Offices of Physicians, Mental Health Specialists
621210	Offices of Dentists
621310	Offices of Chiropractors
621320	Offices of Optometrists
621330	Offices of Mental Health Practitioners (except Physicians)
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists
621391	Offices of Podiatrists
621399	Offices of All Other Miscellaneous Health Practitioners

621410	Family Planning Centers
621420	Outpatient Mental Health and Substance Abuse Centers
621491	HMO Medical Centers
621492	Kidney Dialysis Centers
621493	Freestanding Ambulatory Surgical and Emergency Centers
621498	All Other Outpatient Care Centers
621511	Medical Laboratories
621512	Diagnostic Imaging Centers
621610	Home Health Care Services
621910	Ambulance Services
621991	Blood and Organ Banks
621999	All Other Miscellaneous Ambulatory Health Care Services
622110	General Medical and Surgical Hospitals
622210	Psychiatric and Substance Abuse Hospitals
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals
623110	Nursing Care Facilities (Skilled Nursing Facilities)
623210	Residential Intellectual and Developmental Disability Facilities
623220	Residential Mental Health and Substance Abuse Facilities
623311	Continuing Care Retirement Communities
623312	Assisted Living Facilities for the Elderly
623990	Other Residential Care Facilities

Information and Communications Technology	
NAICS	Definition
333242	Semiconductor Machinery Manufacturing
333316	Photographic and Photocopying Equipment Manufacturing
334111	Electronic Computer Manufacturing
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing
334210	Telephone Apparatus Manufacturing
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
334290	Other Communications Equipment Manufacturing
334310	Audio and Video Equipment Manufacturing
334412	Bare Printed Circuit Board Manufacturing
334413	Semiconductor and Related Device Manufacturing
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
334419	Other Electronic Component Manufacturing
335121	Residential Electric Lighting Fixture Manufacturing

335210	Small Electrical Appliance Manufacturing
335314	Relay and Industrial Control Manufacturing
335911	Storage Battery Manufacturing
335929	Other Communication and Energy Wire Manufacturing
335931	Current-Carrying Wiring Device Manufacturing
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing
511210	Software Publishers
515210	Cable and Other Subscription Programming
517311	Wired Telecommunications Carriers
517312	Wireless Telecommunications Carriers (except Satellite)
517410	Satellite Telecommunications
517911	Telecommunications Resellers
517919	All Other Telecommunications
518210	Data Processing, Hosting, and Related Services
519130	Internet Publishing and Broadcasting and Web Search Portals
541511	Custom Computer Programming Services
541512	Computer Systems Design Services
541513	Computer Facilities Management Services
541519	Other Computer Related Services
541715	Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
541720	Research and Development in the Social Sciences and Humanities

Tourism and Hospitality	
NAICS	Definition
114210	Hunting and Trapping
453920	Art Dealers
487110	Scenic and Sightseeing Transportation, Land
487210	Scenic and Sightseeing Transportation, Water
487990	Scenic and Sightseeing Transportation, Other
532284	Recreational Goods Rental
561510	Travel Agencies
561520	Tour Operators
561591	Convention and Visitors Bureaus
561599	All Other Travel Arrangement and Reservation Services
711211	Sports Teams and Clubs
711212	Racetracks
711219	Other Spectator Sports

712110	Museums
712120	Historical Sites
712130	Zoos and Botanical Gardens
712190	Nature Parks and Other Similar Institutions
713110	Amusement and Theme Parks
713120	Amusement Arcades
713210	Casinos (except Casino Hotels)
713290	Other Gambling Industries
713930	Marinas
713990	All Other Amusement and Recreation Industries
721110	Hotels (except Casino Hotels) and Motels
721120	Casino Hotels
721191	Bed-and-Breakfast Inns
721199	All Other Traveler Accommodation
721211	RV (Recreational Vehicle) Parks and Campgrounds
721214	Recreational and Vacation Camps (except Campgrounds)
721310	Rooming and Boarding Houses, Dormitories, and Workers' Camps
722410	Drinking Places (Alcoholic Beverages)
722511	Full-Service Restaurants