





2023/2024 Santa Barbara State of the Workforce Report

September 1, 2024

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Executive Summary

Introduction

The Santa Barbara County Workforce Development Board (SBCWDB) has engaged BW Research to prepare the 2023/2024 State of the Workforce Report, which summarizes the county's workforce and economic landscape, including key industry sectors, local employer concentrations, occupational opportunities, and career pathways.¹

Figure 1 below illustrates the geographic boundaries of Santa Barbara County. As shown, there are three regional workforce areas in the county (north, central, and south), each with its own unique challenges with respect to employment opportunities and educational attainment, which poses challenges to effective program design, planning, and implementation.

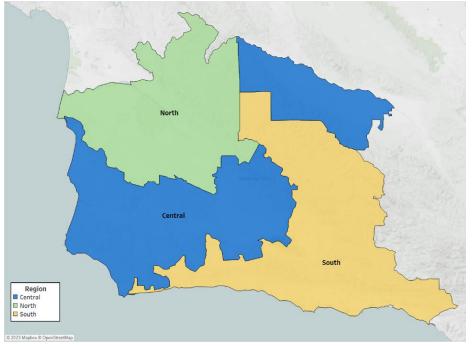


Figure 1: Regional Definition of Santa Barbara County (Population: 455,823)

study, north county residents are more ethnically diverse, while south county residents have higher rates of educational attainment and are more frequently employed in high-wage, high-skill industries. The central region is home to vineyards and wineries, as well as an emerging aerospace and defense industry at Vandenberg.

As documented in this

As shown in **Figure 7**, there are distinct

differences between the average wages earned by workers in each geographic region, with south county workers earning the highest wages on average, followed by central county workers, and north county workers.

The analyses summarized in this study present employment and demographic statistics on a regional (north, central, and south county), countywide, and statewide basis, as applicable. The geographic boundaries of the northern, central, and southern regions are defined consistently with prior-year state of the workforce studies, allowing for comparisons of geographic trends over time.

¹ The zip codes associated with each of these regions are listed in Appendix A of this report.

Methodology

The analyses summarized in this report were based upon:

- Data obtained from public and private sources, including JobsEQ, the U.S.
 Bureau of Labor Statistics, the U.S.
 Census Bureau, the California
 Employment Development
 Department, the California
 Department of Finance, and the
 California Association of Realtors.
- Secondary workforce and economic research to support and provide context for the findings of the quantitative data analysis.
- Executive interviews of key stakeholders and regional leaders from industry, educational institutions, unions, elected government officials, and workforce and economic development organizations.
- Surveys of local employers to identify challenges to doing business in Santa Barbara County, the current business environment, key concerns, challenges, and interest in different workforce development and economic development strategies.^{2 3}

Key findings from the 2023/2024 report are summarized in the following subsection.

INDUSTRY CLUSTERS

Economists often use industry clusters to determine a region's drivers of development. Clusters include **closely related industries** that often work together in supply chains or create value through sources of interconnectedness such as partnerships, business opportunities, or a shared workforce. The following high and middle-wage industry clusters are highlighted as current or potential drivers of growth in the county:

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.

Building and Design includes all industries related to residential and commercial building construction, such as new single-family housing construction, residential remodelers, and heating and air conditioning equipment manufacturing.

Information & Communications includes industries related to media production and media distribution, such as TV shows, motion pictures, books, newspapers, and radio broadcasting.

Defense, Aerospace, & Transportation Manufacturing (DATM) consists of all industries that manufacture and design instruments, aircrafts, space vehicles, and other engine components.

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

² While a survey of local businesses was fielded in February 2024, an insufficient number of responses (24) was received to generate statistically significant results. Thus, quantitative results from the local employer surveys are not presented in this study. However, this study incorporates a general discussion of relevant trends and findings from the local employer surveys.

³ Please see page 60 for a list of all industry clusters analyzed in the 2023/2024 report.



- 1. Santa Barbara County has a relatively tight labor market. County employment has grown rapidly post-pandemic, with a two-year growth rate (8.4 percent) that significantly outpaced the statewide average (5.0 percent). The county's unemployment rate is on par with prepandemic levels, and has remained lower than the statewide average, consistent with historical trends. Furthermore, the county's labor force participation rate has continued to decline and is below the statewide average.
- 2. Wages have failed to keep pace with the high cost of living in the county, due in part to high housing costs. Nearly half of the renters in the county spend 35 percent or more of their total income on housing, and potential homebuyers face an all-time high median home price of \$1,043,441. The median annual salary of workers in the county is only \$48,287, which translates to \$23.21/hour.
- 3. Many of the jobs that have been created over the last two years have been concentrated in the lowest-paying industry clusters:
- The Tourism, Hospitality, and Recreation industry cluster (+23.4 percent job growth, \$36,136 average annual salary) remains the county's largest employer, accounting for 1 in 6 county jobs.
- The Agriculture and Food industry cluster (+17.4 percent job growth, \$48,305 average annual salary) is the county's fourth largest employer, accounting for 1 in 10 county jobs.
- 4. Mid-wage industry clusters with significant growth potential include the Healthcare industry cluster (\$68,702 average annual salary) and the Building & Design industry cluster (\$89,584 average annual salary):
 - The 65+ population is growing rapidly, which will drive up demand for geriatric care and exacerbate the existing shortage of nurses and other workers in the allied health space.

- Planned investments in county infrastructure will drive up demand for construction workers over the next few years.
- 5. Some high-wage industry clusters have also grown rapidly over the last two years:
 - Growth in the Information & Communications industry cluster (+29.6 percent job growth, \$126,980 average annual salary) was primarily driven by a 36.9 percent increase (+161 jobs) in the Web Search Portals and All Other Information Services subindustry.
 - Jobs in the Biotechnology & Biomedical Devices industry cluster (+18.9 percent job growth, \$106,350 average annual salary) are 20 percent more concentrated in the county than in the United States overall.
- 6. Emerging high-wage industries with significant growth potential include Computer & Electronics Manufacturing and Defense, Aerospace & Transportation Manufacturing (DATM) (\$116,735 average annual salary). Santa Barbara County houses a world-class research university and is located near a major aerospace and defense base, providing a unique opportunity to foster a regional innovation ecosystem centered around nanosystems research and aerospace engineering, with the capacity to create high-quality jobs.
 - Moreover, regional partnerships aim to support and develop DATM economic activity at Vandenberg Space Force Base. Both industries have also been identified as target industries under the county's Comprehensive Economic Development Strategy (CEDS).

Conclusions & Recommendations

Santa Barbara County has a robust local workforce and access to quality public and private higher learning institutions and a growing technology sector. However, the county's workforce faces certain challenges, including socioeconomic barriers, an aging population, and a changing technological landscape, which must be addressed for the region to realize its full potential for growth.

Overall, county residents face a high cost of living, which negatively impacts local hiring and retention. As previously mentioned, while employment in Santa Barbara County has grown in recent years, job growth has been primarily focused in low-skill, low-wage sectors. Thus, it is imperative that Santa Barbara County diversify its economy to support the growth of emerging industries that offer higher-wage job opportunities. A sector-based approach can help foster a higher-wage economy, to grow and attract new businesses and investments in emerging industries, and to support the local workforce in transitioning to higher-wage positions via education and training.

The median wage hourly wage for workers in Santa Barbara County is **10 percent lower** than the statewide average, while the median rent in Santa Barbara is 5 percent higher than the statewide average, and the median price of a single-family detached home in Santa Barbara is **29 percent higher** than the statewide average. This combination of low wages and high housing costs makes living in Santa Barbara County difficult: families with 2 parents and 2 children would need to work 2.3 Tier 3 jobs to earn a living wage in Santa Barbara County.

Thus, we recommend that the WDB target the following goals:

- 1. **Educate students and potential workers on higher-paying career pathways** in fields such as DATM, advanced Electronics Manufacturing, Healthcare, and Building & Design.
- 2. Target growth of Santa Barbara County's remote workforce by expanding programs that cover basic IT skills and other foundational skills needed to succeed when working remotely and perform outreach to large tech companies outside the region to help identify remote work opportunities for county residents.
- Create workforce development programs targeted at developing skills needed to support jobs in emerging technologies such as Offshore Wind, including jobs in environmental management and operations and maintenance.
- 4. **Expand upskilling and re-skilling programs targeted at north county residents** with lower education levels, to help bolster Santa Barbara County's declining labor force participation rate.
- 5. **Support local innovation and entrepreneurship** by promoting awareness of the capabilities and services offered by UCSB's Nanofab and other entrepreneurial organizations or resources.
- 6. **Expand partnerships with local nonprofits** to help connect local jobseekers to a comprehensive suite of wrapround services, to help mitigate barriers to employment.

The following sections of the report provide detailed information on the economic and workforce data analyzed and the secondary research performed to develop the conclusions and recommendations summarized above.

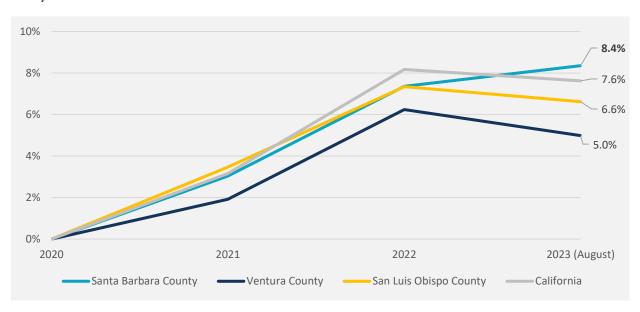
Economic Profile

This section summarizes key economic indicators such as total employment, labor force participation rate, industry clusters, and job quality across different tiers. The industry cluster analysis sheds light on Santa Barbara County's competitive advantage in specific sectors, and indicators such as job quality provide a more nuanced perspective on the economic well-being of county residents, which other aggregated measures do not necessarily provide.

Employment Rate

Employment in Santa Barbara County recovered from pandemic-induced losses more quickly than in neighboring counties and the state. As shown in **Figure 2**, county jobs grew by 8.4 percent between 2020 and 2022, compared to 5.0 percent in California, and county employment exceeds pre-pandemic levels (**Figure 28**).

Figure 2. Employment Change for Santa Barbara County, Neighboring Counties, and the State (2020 – 2023)⁴



⁴ California EDD. Local Area Unemployment Statistics (2020 – 2023).

Unemployment Rate

The county's unemployment rate has recovered to pre-pandemic levels. Moreover, the county's unemployment rate was below the statewide average and roughly equivalent to the national average in every year from 2018 to 2023 (**Figure 3**).



Figure 3. Unemployment Rate for Santa Barbara County, California, and the U.S. (2018 – 2023)⁵

Labor Force Participation Rate

The county's labor force participation rate (LFPR)⁶ has continued to drop since 2017. The gap between the county's LFPR and the state and national LFPRs has been increasing since 2020 (Figure 4).

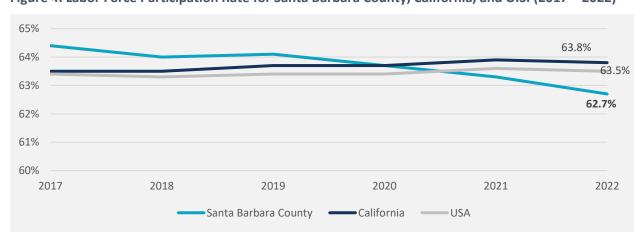


Figure 4. Labor Force Participation Rate for Santa Barbara County, California, and U.S. (2017 – 2022)⁷

⁵ California EDD. Local Area Unemployment Statistics (2018 – 2023).

⁶ The labor force participation rate (LFPR) measures the percentage of the citizen population that is available and willing to work.

⁷ United States Census Bureau. American Community Survey 5-year Estimates (2017-2022).

Numerous theories have been advanced regarding the "missing workers" that exited the labor market during the COVID-19 pandemic, including a culture shift known as the "Great Resignation," where workers collectively re-assessed work-life balance; bouts of long COVID that sidelined potential workers; and individuals who opted to draw down excess savings rather than hold jobs; and increasing retirement rates among older adults. However, much of the decline in LFPR can be attributed to changes in the composition of the population, as the share of older adults increased.

The drop in the working-age population and its attendant effects upon the resident workforce is a widespread problem that will affect communities all over the U.S. over the next several years, as it may exacerbate labor shortages, increase healthcare costs, and increase the burden on existing workers to support these elevated healthcare costs, pension benefits, and other publicly funded programs. In addition, a larger share of older adults and retirees may affect the demand drivers for local economies.⁸

According to the Federal Reserve Bank of San Francisco, the national LFPR was almost a percentage point below pre-pandemic levels as of July 2023, and was predicted to fall by an additional percentage point over the next decade as the share of seniors continues to grow. Since Santa Barbara County's LFPR will likely continue to decline consistent with nationwide trends, increased investments in the county's labor force may be merited in order to ensure that the gap between the county's LFPR and state and nationwide LFPRs does not continue to widen over time.

Job Quality

Job quality – which is typically measured in tiers – serves as a crucial measure of a region's economic vitality. For instance, if a region has many jobs, but most of those jobs pay less than a sustainable wage, workers will struggle to live and work in the region.

Table 1. Job Tier Description¹⁰

Tier 1	Tier 2	Tier 3		
Tier 1 occupations are typically the	Tier 2 occupations are typically	Tier 3 occupations are typically the		
highest-paying, highest-skilled	middle-wage, middle-skill occupations.	lowest-paying, lowest-skilled		
occupations in the economy. Such	These occupations include office and	occupations and tend to account for		
occupations include managerial positions	administrative positions (e.g.,	the largest share of jobs in the		
(e.g., Sales Managers), professional	Accounting Clerks and Secretaries),	County. These occupations include		
positions (e.g., Lawyers), and highly skilled	manufacturing operations, and	food service and retail jobs, building		
technology occupations, such as	production positions (e.g., Electricians,	and grounds cleaning positions, and		
engineers, scientists, and computer	Machinists).	personal care positions.		
programmers.				
\$118,000 Average Annual Salary	\$71,300 Average Annual Salary	\$44,700 Average Annual Salary		
\$57.00 Average Hourly Wage	\$34.28 Average Hourly Wage	\$21.52 Average Hourly Wage		

⁸ For example, rapidly aging populations have greater demands for healthcare services.

⁹ https://www.frbsf.org/research-and-insights/publications/economic-letter/2023/08/how-far-is-labor-force-participation-from-its-trend/

¹⁰ Tiers do not include all SOC codes, and therefore may not sum up to total county and statewide employment. Average annual salary and average hourly wage calculated as of the second quarter of 2023.

As shown in **Figure 5**, job quality has fallen slightly within the county since 2021, with the share of lower-skill and lower-wage Tier 3 jobs increasing by 1.1 percentage points between the second quarter of 2021 and the second quarter of 2023. In addition, Santa Barbara County's job quality is lower than the statewide average, with a higher share of Tier 3 jobs compared to California (**Figure 6**).

Within the county, higher-paying Tier 1 jobs are concentrated in the southern region, and lower-paying Tier 2 and Tier 3 jobs are concentrated in the central and northern regions (**Figure 7**).

In county
households with two
working adults and
two children, each
adult would need to
work 1.5 Tier 3 jobs
to meet the living
wage determination.

Figure 5. Job Quality by Tier in Santa Barbara County (2021 Q2 - 2023 Q2)¹¹

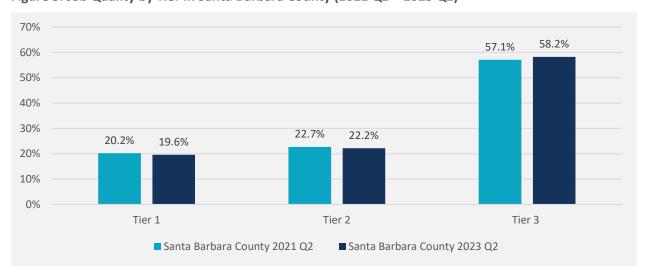
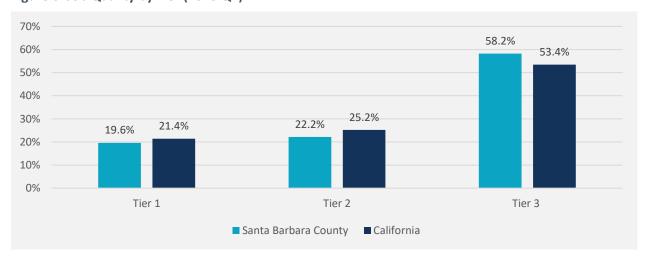


Figure 6. Job Quality by Tier (2023 Q2)¹²



¹¹ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2021 – 2023).

¹² JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

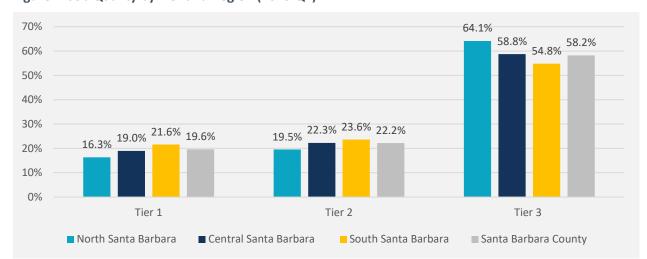


Figure 7. Job Quality by Tier and Region (2023 Q2)¹³

Table 2. Living Wage Determination¹⁴

Family Size	Living Wage Annual Salary	Hourly Wages Required to Achieve Salary (Per Working Adult)
1 Adult & 2 Children	\$125,512	\$60.34
2 Adults (1 working) & 2 Children	\$102,346	\$49.21
2 Adults (both working) & 2 Children	\$66,267	\$31.86

Industry Cluster Employment

The subsequent sections outline the seventeen significant industry clusters in Santa Barbara County, categorized by earnings (high, mid, and low). High-wage clusters offer an average annual wage of more than \$100,000, mid-wage clusters offer wages between \$50,000 and \$99,999, and low-wage industry clusters offer an average annual wage less than \$50,000. Industry clusters are also displayed to graphically illustrate

INDUSTRY CLUSTERS

Economists often use industry clusters to determine a region's drivers of development. Clusters include **closely related industries** that often work together in supply chains or create value through other sources of interconnectedness, such as partnerships, business opportunities, or a shared workforce. Cluster analyses allow the County to engage with employers central to regional economic growth, and to create workforce development programs in high-growth clusters.

¹³ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

¹⁴ MIT Living Wage Calculator (2024).

employment size in the county, and cluster-specific location quotients are presented in the below tables.¹⁵

As shown in the following figures, major employers in Santa Barbara County include the Tourism, Hospitality, and Recreation industry, which accounts for one in six jobs in the county (17.4 percent), followed by the Healthcare industry (13.8 percent), the Education and Knowledge Creation industry (11.7 percent), and the Agriculture and Food industry (10.0 percent). Collectively, these four industries accounted for over half of all jobs in Santa Barbara County (52.9 percent).

Santa Barbara Industry Clusters Analysis

The following industry clusters offer higher wages (average annual wages falling within Tiers 1 or 2) and high potential for growth in Santa Barbara County:

- 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.
- **Defense, Aerospace, and Transportation Manufacturing (DATM)** consists of all industries that manufacture and design instruments, aircraft, space vehicles, and other engine components.
- **Information & Communications** includes industries related to media production and media distribution, such as TV shows, motion pictures, books, newspapers, and radio broadcasting.
- **Biotechnology and Biomedical Devices** includes manufacturing, research, and suppliers related to biotechnology, agricultural chemicals, medical instruments, and pharmaceutical equipment intended to improve the quality of human life.
- Building and Design includes all industries related to residential and commercial building construction, such as new single-family housing construction, residential remodelers, and heating and air conditioning equipment manufacturing.

A full list of industry clusters evaluated in this study is shown in Appendix B: Industry Clusters.

Highest-Earning Clusters

The county's highest-earning industry clusters exhibited mixed growth in employment. The Information and Communications industry cluster experienced a 29.6 percent increase in employment from 2021 Q2 to 2023 Q2, primarily driven by a 36.9 percent increase (+161 jobs) in the Web Search Portals and All Other Information Services subindustry. The Biotech and Biomedical industry also

¹⁵ Location quotients are ratios used to assess the concentration for an industry group in a specific area relative to a larger geographic area (i.e., the United States). Location quotients are valuable in determining if a region specializes in a particular industry cluster compared to the average at the state or national level. For example, a location quotient greater than one signifies an above-average concentration of those jobs in the region, while a location quotient below one indicates a below-average concentration. A location quotient of one indicates that the regional job concentration is on par with the broader region it is being compared to.

exhibited a large gain in employment (+18.9 percent), driven by sharp growth in the Research and Development in Biotechnology subindustry (+321.8 percent, +295 jobs).

The Defense, Aerospace, and Transportation Manufacturing (DATM) industry exhibited a smaller increase of 8.9 percent, driven by a 10.8 percent increase (+161 jobs) in the Nautical System and Instrument Manufacturing¹⁶ subindustry. The Information, Communications, and Technology (ICT) industry exhibited a 3.2 percent increase, driven by a 7.1 percent increase (+124 jobs) in the Software Publishers subindustry.

The Finance, Banking, and Insurance industry exhibited a 1.1 percent decline in employment, driven by employment losses sustained in the Insurance Agencies and Brokerages subindustry (-11.4 percent, -88 jobs). The Public Services and Infrastructure industry declined by 2.5 percent, driven by losses in the Relay and Industrial Control Manufacturing subindustry (-62.8 percent, -176 jobs). However, losses in this subindustry were partially offset by growth in the Highway, Street, and Bridge Construction subindustry (+23.5 percent, +76 jobs).

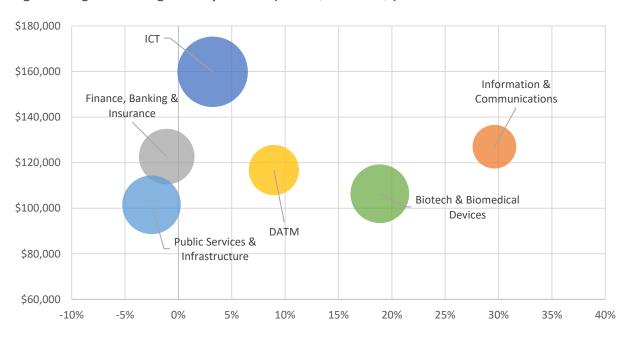


Figure 8. Highest Earning Industry Clusters (2021 Q2 – 2023 Q2)¹⁷

As shown in **Table 3**, Biotechnology and Biomedical Devices jobs are more prevalent in Santa Barbara County compared to the rest of the nation. Jobs in this industry cluster are 20 percent more concentrated in Santa Barbara County than in the United States overall, representing a location quotient of 1.20. All other high-earning clusters in Santa Barbara County have job concentrations below the national average.

¹⁶ Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing

¹⁷ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

Table 3. Industry Cluster Overview - Highest Earning Industry Clusters (2021 Q2 - 2023 Q2)¹⁸

Industry Cluster	Industry Cluster Employment (2023 Q2)	Employment Change since 2021 Q2 (%)	Avg. Annual Wages	LQ (2023 Q2)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2023 Q2)	Employment Change since 2021 Q2 (%)
Information & Communication Technologies (ICT)	6,356	3.2%	\$159,851	0.85	Software Publishers	1,868	+7.1%
Information & Communications	2,446	29.6%	\$126,980	0.90	Web Search Portals and All Other Information Services	598	36.9%
Finance, Banking, & Insurance (FBI)	3,960	-1.1%	\$122,651	0.42	Insurance Agencies and Brokerages	682	-11.4%
Defense, Aerospace, & Transportation Manufacturing (DATM)	3,234	8.9%	\$116,735	0.89	Nautical System and Instrument Manufacturing ¹⁹	1,649	10.8%
Biotechnology & Biomedical Devices (B&BD)	4,410	18.9%	\$106,350	1.20	Research and Development in Biotechnology	387	321.8%
Public Services & Infrastructure	4,397	-2.5%	\$101,497	0.71	Relay and Industrial Control Manufacturing	104	-62.8%

Mid-Earning Clusters

Employment in all mid-earning industry clusters grew between 2021 and 2023, except for Professional and Business Services. The Education and Knowledge Creation industry saw the highest growth rate of all mid-earning clusters, at 8.8 percent, driven by a 13.3 percent increase (+1,288 jobs) in the Elementary and Secondary Schools subindustry. This increase in subindustry employment is likely attributable to school closure mandates being lifted post-pandemic.

The Real Estate industry experienced robust employment growth of 7.3 percent, driven by 24.9 percent growth (+201 jobs) in the Offices of Real Estate Agents and Brokers subindustry, and jobs in the Healthcare industry grew by 6.3 percent, driven by 12.9 percent growth (+504 jobs) in the Services for the Elderly and Persons with Disabilities subindustry.

Building and Design industry employment grew by 5.2 percent, driven by 9.1 percent growth (+108 jobs) in the Residential Remodelers subindustry. The Other Manufacturing industry exhibited a 4.3 percent employment increase, driven by 24.1 percent growth (+55 jobs) in the All Other Industrial Machinery

¹⁸ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

¹⁹ Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing

Manufacturing subindustry. The Logistics industry exhibited weaker growth of 1.0 percent, driven by 37.8 percent employment gains (+91 jobs) in the Other Farm Product and Raw Material Merchant Wholesalers subindustry.

The Professional and Business Services industry was the only declining mid-earning industry cluster, with a sharp 15.4 percent decrease in jobs, driven by significant losses (-52.8 percent, -6,110 jobs) in the Temporary Help Services²⁰ subindustry.

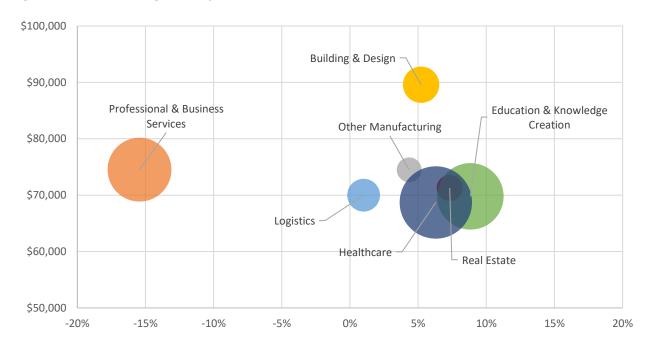


Figure 9. Middle Earning Industry Clusters (2021 Q2 - 2023 Q2)²¹

As shown in **Table 4**, among the mid-earning clusters, Education and Knowledge Creation is the most concentrated in Santa Barbara County (6 percent more concentrated in Santa Barbara County, or 1.06 times) than in the United States.

²⁰ This subindustry comprises establishments primarily engaged in supplying workers to clients' businesses for limited periods to supplement the client's working force. The significant employment losses sustained in this subindustry can likely be attributed to the decrease in temporary COVID-19-related jobs, such as vaccine clinics and other relevant positions.

²¹ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

Table 4. Industry Cluster Overview – Middle Earning Industry Clusters (2021 Q2 – 2023 Q2)²²

Industry Cluster	Industry Cluster Employment (2023 Q2)	Employment Change since 2021 Q2 (%)	Avg. Annual Wages	LQ (2023 Q2)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2023 Q2)	Employment Change since 2021 Q2 (%)
Building & Design	7,227	5.2%	\$89,584	0.89	Residential Remodelers	1,289	9.1%
Professional & Business Services (PBS)	22,293	-15.4%	\$74,525	0.83	Temporary Help Services	5,472	-52.8%
Other Manufacturing	3,360	4.3%	\$74,495	0.40	All Other Industrial Machinery Manufacturing	284	24.1%
Real Estate	3,694	7.3%	\$71,281	0.97	Offices of Real Estate Agents and Brokers	1,012	24.9%
Logistics	5,881	1.0%	\$69,994	0.45	Other Farm Product and Raw Material Merchant Wholesalers	331	37.8%
Education & Knowledge Creation	24,172	8.8%	\$69,788	1.06	Elementary and Secondary Schools	10,966	13.3%
Healthcare	28,641	6.3%	\$68,702	0.89	Services for the Elderly and Persons with Disabilities	4,408	12.9%

Lowest-Earning Clusters

All of the lowest-earning industry clusters in Santa Barbara County – Tourism, Hospitality, and Recreation (+23.4 percent), Agriculture and Food (+17.4 percent), Other Services (+16.6 percent), and Retail (+3.4 percent) – experienced positive growth between 2021 and 2023, fueled by gains in the Full-Service Restaurants (+23.4 percent, +1,828 jobs), Farm Labor Contractors and Crew Leaders (+19.1 percent, +1,838 jobs), Remediation Services (+283.5 percent, +380 jobs), and Clothing & Clothing Accessories Retailers (+21.8 percent, +260 jobs) subindustries, respectively (Figure 10).

Furthermore, as shown in **Table 5**, employment in the Agriculture and Food industry cluster is 247 percent more concentrated in Santa Barbara County, or 3.47 times the national average, as Santa Barbara County's temperate climate makes it well-suited to produce various specialty crops, such as strawberries and wine grapes. As of 2023, Santa Barbara County ranked 12th in the state for agricultural production among 48 counties.²³

²² JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

 $^{^{23}\} https://santamariatimes.com/news/local/how-agriculture-became-santa-barbara-countys-largest-industry-judith-dale/article_e3e47a88-a0ae-58d8-8ce1-051d46670a52.html$



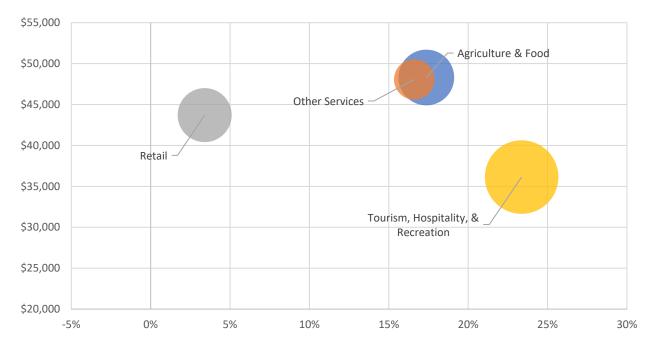


Table 5. Industry Cluster Overview – Lowest Earning Industry Clusters (2021 Q2 – 2023 Q2)²⁵

Industry Cluster	Industry Cluster Employment (2023 Q2)	Employment Change since 2021 Q2 (%)	Avg. Annual Wages	LQ (2023 Q2)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2023 Q2)	Employment Change since 2021 Q2 (%)
Agriculture & Food	20,685	17.4%	\$48,305	3.47	Farm Labor Contractors and Crew Leaders	11,457	19.1%
Other Services	10,917	16.6%	\$48,069	0.96	Remediation Services	514	283.5%
Retail	19,451	3.4%	\$43,708	0.80	Clothing and Clothing Accessories Retailers	1,453	21.8%
Tourism, Hospitality & Recreation	36,063	23.4%	\$36,136	1.27	Full-Service Restaurants	9,646	23.4%

According to county stakeholders interviewed during the data collection process, it is important that the large immigrant population in the north county area is aware of job opportunities outside Agriculture.

²⁴ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

²⁵ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

Workforce Profile

Working Residents & Jobs in the Region

This section examines the flow of workers in and out of Santa Barbara County. **Figure 11** illustrates the "resident workforce," which represents the total number of workers in each occupational category *residing* in the county. The dark blue bar highlights workers in these occupations who *work within* the county. The difference between the two indicates whether the region is a net importer or exporter of talent.

Overall, the county is a net importer of talent across all occupational categories. Management, Business, Science and Arts occupations have the highest number of imported workers, with over 5,000 more workers in this field commuting to Santa Barbara County to work than workers in this field who reside in Santa Barbara County. This means there are more individuals residing outside of the county who commute to the region for work, compared to those who both live and work within the region.²⁶

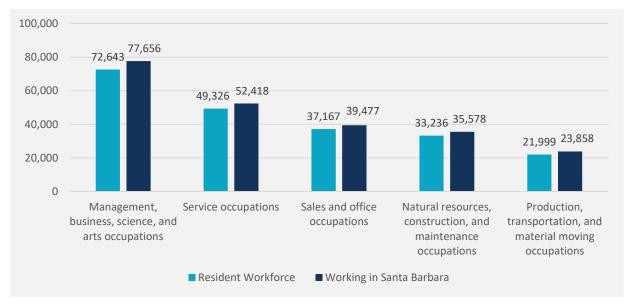


Figure 11. Working Residents and Jobs in Santa Barbara County (2023 Q2)²⁷

Demographics

This section summarizes demographic characteristics of Santa Barbara County's residents, including race, ethnicity, age, and educational attainment. These metrics provide useful information to

²⁶ Individuals working from home for a business located outside of Santa Barbara County are counted as working outside the county.

²⁷ JobsEQ 2023 Q2. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

characterize the region's potential workforce and talent pipeline and can help inform the allocation of available education and training resources.

Santa Barbara County's demographic composition has changed significantly between 2018 and 2022. The share of White residents in the county decreased by 16.8 percentage points during this period, while the share of Hispanic or Latino residents and Multiethnic residents increased 1.5 and 13.5 percentage points, respectively (**Figure 12**). Compared to California, Santa Barbara County has a higher proportion of White and Hispanic or Latino residents and a lower proportion of Black or African American and Asian residents as of 2022 (**Figure 30**).

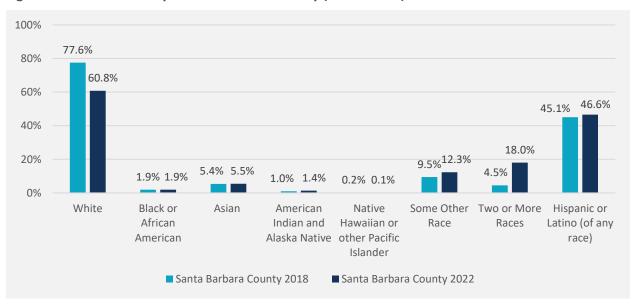
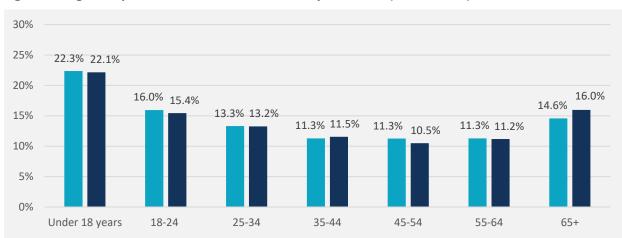


Figure 12. Race & Ethnicity in Santa Barbara County (2018 - 2022)²⁸

The share of county residents 65 years or older increased by 1.4 percentage points from 2018 to 2022, while the share of county residents 18-24 years old decreased by 0.6 percentage points (**Figure 13**). The county's prime-working-age population of 25–54 year olds decreased 0.5 percentage points during the same period. The county has a larger 18–24 year old population²⁹ and 65 years or older population compared to the state, while the proportion of 25–64 year olds is below the statewide average (**Figure 14**).

²⁸ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).

²⁹ Per the 2-month rule, anyone who is currently living or staying at an address for more than 2 months is considered a current resident of that address. A person away from their address for more than 2 months is considered not to be a resident. However, for residents in group quarters, all people residing in the facility at the time of the interview, regardless of the length of stay, are eligible to be selected to be interviewed in the ACS. Thus, students of UC Santa Barbara are typically considered residents by the U.S. Census Bureau.

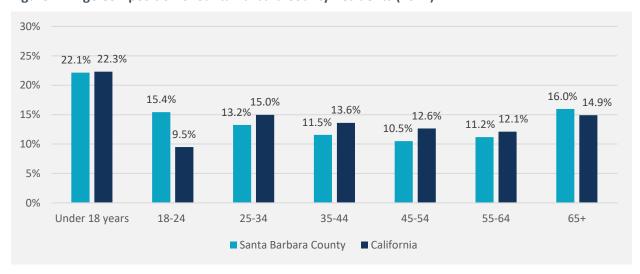


■ Santa Barbara County 2022

Figure 13. Age Composition of Santa Barbara County Residents (2018 – 2022)³⁰



■ Santa Barbara County 2018



While the educational attainment of county residents increased between 2018 and 2022, with a higher proportion of residents holding a bachelor's degree or higher (**Figure 15**), county residents exhibit lower levels of educational attainment than the statewide average, with nearly one in five (19.5 percent) county residents holding less than a high school diploma, as compared to approximately one in six (16.9 percent) California residents. However, the proportion of county residents with a bachelor's degree or higher is comparable to the statewide average, at 39.0 percent (**Figure 16**).

³⁰ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).

³¹ United States Census Bureau. American Community Survey 5-year Estimates (2022).



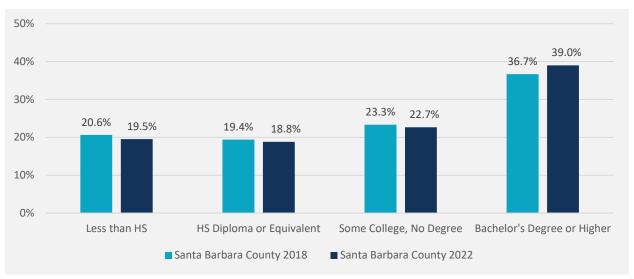
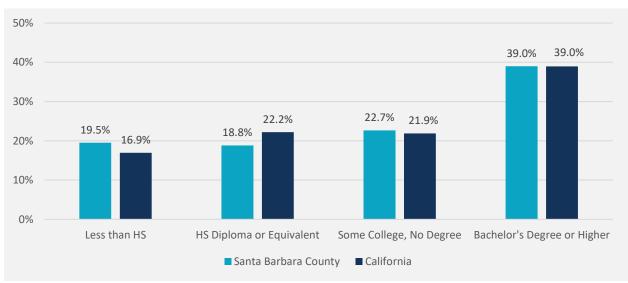


Figure 16. Educational Attainment of Populations Aged 25 and Older (2022)³³



³² United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).

³³ United States Census Bureau. American Community Survey 5-year Estimates (2022).

Housing Costs

While housing costs for county homeowners with a mortgage are comparable to statewide averages (**Figure 31**), housing costs for renters exceed statewide averages, with a higher share of county renters spending more than 35 percent of their incomes on housing costs than the statewide average (**Figure 17**).

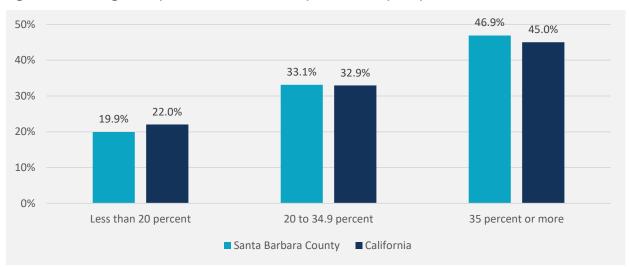


Figure 17. Housing Costs (% of Household Income) for Renters (2022)³⁴

Data from the California Association of Realtors also shows the percentage of county residents who can afford to purchase a median-priced home sharply decreased from 2021 to 2023 (**Figure 18**).

Median single-family home prices in Santa Barbara County have exceeded median home prices in neighboring counties and the state since 2018, reaching an all-time high of \$1,043,441 as of September 2023 (Figure 19).



We have had some cases where there were people who were considering internal transfers to Santa Barbara, because they've heard that Santa Barbara is beautiful, but when they see the cost of living, they change their minds.

ANONYMOUS EXCERPT FROM THE EXECUTIVE INTERVIEWS

³⁴ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).



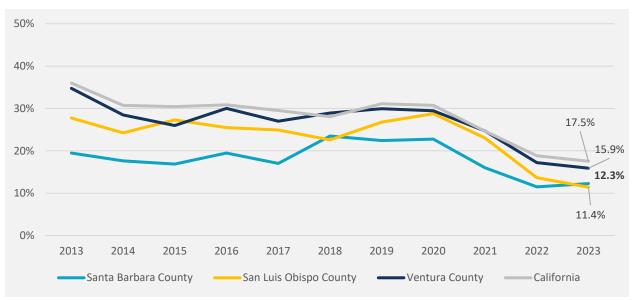
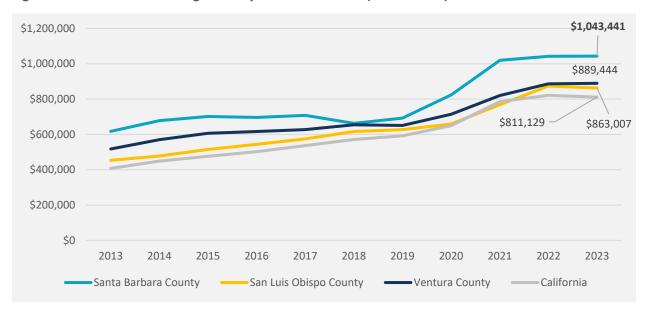


Figure 19. Median Price of Single-Family Detached Homes (2013 – 2023)³⁶





Recruiting and retaining employees is difficult, because you have these young people, they enter the workforce, but then they leave later on because they are starting families, and they can't afford to buy a house in the county.

ANONYMOUS EXCERPT FROM THE EXECUTIVE INTERVIEWS



We need to explore all options to move the needle on the housing shortage. For instance, we know there is a financing component. Can we better target funding to infrastructure that will support new housing? Can we develop **innovative financing tools** to help residents access housing and developers meet regional housing objectives? This will require new collaborative and creative ways of working.

- JOSHUA BOSWELL, VICE PRESIDENT OF ECONOMIC DEVELOPMENT & POLICY, REACH

Both the executive interviews and the local employer surveys highlighted housing as a primary concern for Santa Barbara County, particularly in the context of the impact of high housing costs on worker recruitment and retention.

Given the lack of affordable housing, homelessness has posed a statewide challenge that affects individuals in every region and county. According to U.S. Census data, the Central Coast region had the second-highest number of people experiencing homelessness per capita as of February 2022.³⁷ As of January 25, 2023, the 2023 Homeless Point in Time (PIT) Count indicated that 1,887 persons experienced homelessness in Santa Barbara County.

However, the County has taken an innovative approach to addressing homelessness, partnering with DignityMoves, an organization that focuses on constructing affordable, portable modular housing units on underutilized or vacant parcels in as little as three years, to bring new interim supportive housing communities to Santa Barbara County, as described below.

CASE STUDY: DignityMoves

In 2022, the 1016 Santa Barbara interim housing community – developed in partnership between the County and DignityMoves – opened its doors in downtown Santa Barbara. The community features thirty-four private rooms each containing a bed, seating, heating and air conditioning, a window, and locking doors; and case manager offices, dining and community spaces, a computer lab, pet area, community gardens, and a storage area for residents' belongings. The community offers individuals experiencing homelessness with access to their own space, coupled with onsite access to mental health counseling, substance abuse treatment providers, and medical practitioners for 6 to 12 months.

Santa Barbara County and DignityMoves developed a similar 80-unit community, La Posada, in southern Santa Barbara, which opened its doors in April 2024. A similar 90-unit community called Hope Village was constructed in Santa Maria and opened its doors in March 2024.

³⁵ California Association of Realtors Housing Affordability Index (2013 – 2023).

³⁶ California Association of Realtors Historical Housing Data (2013 – 2023).

³⁷ https://calbudgetcenter.org/resources/homelessness-california-statewide-challenge/?gclid=CjwKCAiAlJKuBhAdEiwAnZb7laZ0iKu7yh6eQD3A8xKvcPT2Kuu3mUv7VqxfzTsYEB_PeL1hGrhjRxoC6xoQAvD BwE

Childcare

Finding affordable, high-quality childcare has also been a challenge in Santa Barbara County. According to the Santa Barbara Foundation (SBF), families in Santa Barbara County across income levels encounter long waitlists due to a deficit of over 9,000 childcare spaces across the county.

The 2024 Santa Barbara County Child Care Facilities Needs Assessment (CCFNA), developed through a partnership of Children's Resource and Referral of Santa Barbara County, Eileen Monahan Consulting Research, and SBF, found that just 1 in 10 infants and toddlers currently have access to a licensed childcare space.³⁸ Childcare operators reported that the greatest challenges to expansion include lack of staff and funding, regulatory requirements, and support with site development.

CASE STUDY: Santa Barbara Foundation

The Santa Barbara Foundation (SBF), Santa Barbara County's nonprofit community foundation since 1928, supports efforts to address specific workforce gaps in the county, including a strategic focus on the childcare workforce and on expanding Community Health Workers (also known as Promotores). According to Jamie Perez, Program Officer, SBF has also supported expanding internship programs in northern Santa Barbara County through partnerships with SBCEO's Partners in Education and EconAlliance. In addition, SBF leads Santa Barbara County's Digital Equity Coalition with the Broadband Consortium Pacific Coast and 70+ representatives across sectors representing education and information services, health services, public housing, governance, and community resilience organizations, to address socioeconomic barriers to employment faced by the local population, improving digital access and equity for the county's disadvantaged workers and students.

As part of SBF's commitment to strengthen working and vulnerable families, SBF has provided childcare scholarships to working parents since 1997 through the William and Lottie Daniel Child Care Scholarship Fund, but there is still a need for more scholarship dollars for middle-income earning families and support for the childcare sector. As a result, SBF is engaging with partners, including joint members of the American Recovery Plan Act Build Up Santa Barbara County Childcare Project, to address the challenges of providing quality care for the county's youngest residents, increase the childcare workforce for infants and toddlers, increase childcare spaces, and assess childcare facility needs. SBF partners with private and social sector childcare providers and local government agencies to grow the childcare workforce through workforce training, technical assistance, and targeted funding to grow the workforce to address the need for choice driven affordable, and accessible childcare. SBF also offers Childcare grants to local nonprofit childcare providers serving children 0-5 years of age to increase capacity among nonprofit childcare providers in Santa Barbara County to meet the critical needs of young children.

³⁸ Children's Resource and Referral (CRR) is the only organization in the county that supports Family Child Care Providers with obtaining a license. CRR provides educational activities, technical assistance on licensing paperwork, financial reimbursements for start-up costs, incentives for serving Infants and Toddlers, and ongoing support for individuals who are interested in becoming licensed Child Care Providers, free of charge to the Provider.

Lack of childcare accessibility has consequences far beyond the immediately affected families. The local economy suffers when parents are forced to weigh both the cost of working and of staying in the county. As the CCFNA states:

The availability of high-quality childcare facilities affects a community's labor force and economy. According to the Bipartisan Policy Center's Child Care Gap report (2019), Santa Barbara County experiences an annual negative economic impact of \$305 million in lost revenue for families, businesses, and government due to the limited supply of licensed child care options. The community benefits from broad access to high quality childcare, and all sectors can contribute towards the effort to ensure this critical community infrastructure is in place.

Net Migration

Between 2020 and 2021, nearly 10,774 residents left Santa Barbara County, representing a 2.4 percent decrease in the county's population, consistent with statewide population declines. However, in 2022, the county's population grew by 0.4 percent, partially offsetting the large losses from the prior year.

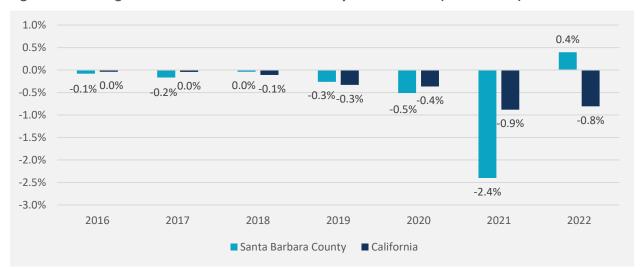


Figure 20. Net Migration Flows in Santa Barbara County and California (2016 - 2022)³⁹

Transportation

Driving alone is the primary mode of transportation in Santa Barbara County, with nearly two in three workers driving alone in 2022. Residents of the northern region are the most likely to drive alone or carpool to work, with over 91% of residents utilizing those modes of transportation (**Figure 32**).

However, the share of remote workers in the county nearly doubled from 2018 to 2022, increasing from 6.3 percent to 11.2 percent (**Figure 21**). Nearly one in six residents of the south county region work from

³⁹ California Department of Finance July Population Estimates. https://dof.ca.gov/forecasting/demographics/estimates/

home, compared to one in ten in the central region and only one in twenty residents of the north region as of 2022.

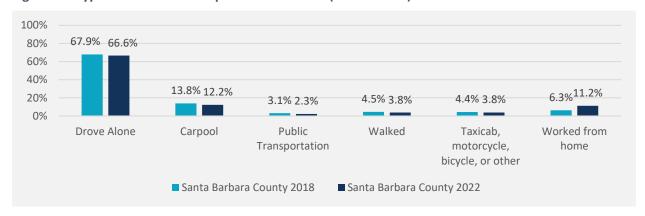


Figure 21. Typical Means of Transportation to Work (2018 – 2022)⁴⁰

According to the Harvard Business Review, remote work represented approximately 28 percent of full workdays in the U.S. as of 2023, and employers nationwide expected the share of fully remote and hybrid work to continue to grow over the next five years as a permanent culture shift arose during the COVID-19 pandemic, where employers became more willing to accept remote and hybrid work arrangements; and workers became increasingly accustomed to the perks of remote work, such as a reduction in transportation costs, and collaborative technologies supporting remote work continues to improve.⁴¹

Continued development of the county's broadband infrastructure will be crucial to supporting the needs of a growing remote workforce, as fast and reliable Internet access is a necessity for remote workers. Enhancement of the county's broadband infrastructure can also create demand for higher-wage jobs in the Buildings & Design industry cluster, as described in the following section.

CASE STUDY: Quintron Systems, Inc.

According to Dominick Barry, President of Quintron Systems, Inc., Quintron has operated in the Santa Maria area for over 50 years, and almost all Quintron's employees historically worked in the Santa Maria office. However, according to Dominick, in recent years, Quintron has been forced to accept remote workers for software engineering roles due to a lack of available local candidates. Quintron has also shifted its customer service model from Santa Maria to Florida and Phoenix. In recent years, Quintron has also struggled to identify suitable local candidates for senior mechanical electrical engineer roles.

⁴⁰ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).

⁴¹ https://hbr.org/2023/08/survey-remote-work-isnt-going-away-and-executives-know-it

Career Pathways



Building & Design Industry Pathways

Various capital improvement projects are planned for Santa Barbara County over the next five years, which will create jobs in the industry.

As shown in the industry cluster analysis, over the last two years, Building & Design industry employment in the county has grown by 5.2 percent. Examples of local companies in the Building & Design space include:⁴²

- Young Construction, a Santa Barbara-based commercial and residential construction firm with over 45 years of experience in the region.
- McCarthy Building Companies, a St. Louis-based real estate development and construction firm responsible for various multifamily housing projects in the County and the renovation of the Santa Barbara Cottage Hospital.⁴³
- MNS Engineers, a Santa Barbara-based multiservice infrastructure consulting firm specializing in planning, civil engineering, construction management, and land surveying services.
- **Flowers & Associates**, a Santa Barbara-based firm with over 40 years of experience in civil engineering, land use planning and permitting, and construction engineering services.

According to Santa Barbara County's Five-Year Capital Improvement Plan (CIP) for fiscal years 2023-2028, \$819.3 million has been budgeted toward spending on General Services, Santa Barbara County's Department of Public Works, and county parks. Capital projects include repairs, rehabilitation, and replacement of critical facilities countywide; improvements and non-routine maintenance to county-owned facilities, roads, bridges, and flood control facilities owned and managed by the Santa

Transformative projects on the horizon for Santa Barbara County
include a regional fire dispatch center, a
new ambulance services model, a
Broadband Strategic Plan (BSP), a
Climate Action Plan (CAP), and new
investments in technology infrastructure.

⁴² Examples of local companies are meant to be descriptive rather than a comprehensive or robust identification of all industry employers in the county.

⁴³ https://mcdmag.com/2012/04/mccarthy-building-companies-completes-santa-barbara-cottage-hospital-replacement-facility/

Barbara County Flood Control & Water Resources District; and other new investments in transformative projects.⁴⁴

According to Santa Barbara County's Strategic Energy Plan (SEP), the county faces unique energy and resiliency challenges due to its location at the border of the PG&E and SCE electrical grids, which has posed several problems:

- Resilience and backup capability are reduced at the end of each utility's system of transmission lines; thus, any major disruption to the grid is "nearly certain" to result in loss of electrical service to county residents.
- A small number of extremely important transmission lines are essential to maintaining the power supply to the county.

The power infrastructure can't support the population that exists today, but yet we want to expand the population. But we don't want to increase the infrastructure for power...I think [that's] going to come to a head here over the next few years.

DOMINICK BARRY, PRESIDENT OF QUINTRON SYSTEMS INC.

The SEP also anticipated that the planned shutdown of the Diablo Canyon nuclear power plant in neighboring San Luis Obispo County was expected to reduce resilience in northern Santa Barbara County.

[What about] all of the people who work in the south county but can't afford to live in the south county? What happens if they get caught outside of the service area when a natural disaster strikes? Repairmen, infrastructure workers, teachers, nurses, first responders, etc. can't afford to live here, so that makes the county more vulnerable to natural disasters.... Many of these critical employees do not live in the footprint.

- ANONYMOUS EXCERPT FROM THE EXECUTIVE INTERVIEWS

The county also faces climate resiliency issues. To address these issues, the County is finalizing a 2030 Climate Action Plan (CAP) to reduce greenhouse gas emissions by 50% by 2030 (below 2018 levels), as well as an associated Environmental Impact Report (EIR) for Board adoption early 2024. In line with the CAP, the County invested in electrification of its fleet and EV infrastructure in fiscal year 2022-2023, as well as energy efficiency upgrades to improve the county's renewable energy profile.

Furthermore, in 2023, the County continued to upgrade its broadband infrastructure. Funding to improve high-speed Internet access was approved through the federal Infrastructure and Jobs Act, and through legislation supporting the California Broadband Council's Broadband for All action plan. In addition, in 2023, Santa Barbara County secured a Local Agency Technical Assistance grant of up to \$1 million from the California

⁴⁴ 2023-2028 Capital Improvement Program, County of Santa Barbara. June 6, 2023. https://content.civicplus.com/api/assets/c4af4c70-2473-42fb-a58b-c86a8bbae31d

Public Utilities Commission (CPUC), which approved a Local Agency Technical Assistance grant to fund an EIR, high-level design engineering, and creation of a countywide Joint Powers Authority (JPA) to implement the County's Broadband Strategic Plan (BSP), helping secure funding to build a last-mile network to connect underserved and unserved homes within the county.⁴⁵

According to the County's BSP, 7.9% of the county's population were unserved or underserved with respect to access to high-speed Internet service. Additional broadband capacity in northern Santa Barbara County was identified as a "critical need," and the Tellus Ventures' 2020 California Broadband Infrastructure Report Card assigned the county a "D" rating based on a lack of sufficient private sector competition.

Broadband is crucial for the region. [W]e need to make sure that we have connectivity and access to highspeed Internet for our businesses. If they're going to relocate here, they want reliable Internet...When you have these high-tech businesses coming in...if they can't connect, they aren't going to come here....So having reliable broadband infrastructure in place is key.

- ANONYMOUS EXCERPT FROM THE EXECUTIVE INTERVIEWS

The Santa Barbara County Association of Governments (SBCAG) believes that the Vandenberg Space Force Base could be a critical anchor tenant for broadband infrastructure since underserved communities around the base stood to benefit strongly from improvements in cross-connectivity and redundancy of internet connections to the base and the mission development zone. Thus, in the BSP, the County indicated that it planned to continue to partner with SBCAG, the Chumash tribe, Vandenberg, and local service providers to expand broadband access to underserved and unserved communities. ⁴⁶ Development of the county's broadband infrastructure under the BSP will both increase the county's economic resiliency and provide jobs for construction workers over the next few years.

In addition, demand for construction workers will be sustained by sixteen capital improvement projects totaling \$11.9 million approved for fiscal year 2023-2024 funding, including:

- Phase 2 of the Modoc Road multi-modal path
- Energy efficiency HVAC projects
- Expansion of the Lompoc Veterans Memorial Hall parking lot
- Funding towards the acquisition of the Orcutt Library building

County investments in energy efficiency and renewable energy projects under the CAP and SEP are also expected to boost climate resilience and to offer additional opportunities for employment in the construction sector in years to come. Furthermore, some community stakeholders believe that community workforce agreements and/or project labor agreements with a local hire component could be helpful for local construction projects to support small construction businesses in the county.

⁴⁵ https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-advances-broadband-access-and-equity-in-state-2023

⁴⁶ https://content.civicplus.com/api/assets/a9d00b39-0f10-49c4-9b5a-b5ede348cdae

Below is a career pathway in the Building and Design industry.

Figure 22. Potential Career Pathway – Building & Design Industry⁴⁷

Construction Laborer \$51,200 Annual Salary High School Diploma or Equivalent

Carpenter \$63,500 Annual Salary Some College, No Degree First-Line Supervisor, Construction Workers \$83,300 Annual Salary Bachelor's Degree

Construction Manager \$120,500 Annual Salary Bachelor's Degree



Healthcare Industry Pathways

The healthcare industry is also expected to provide significant opportunities for growth in Santa Barbara County over the next several years, given the expanding share of residents aged sixty-five and older, which is expected to drive demand for geriatric care.

According to the U.S. Bureau of Labor Statistics, the nationwide

healthcare industry will grow robustly over the next several years, with nurse practitioner jobs expected to rise by 44.5 percent and physician assistant jobs expected to rise by 26.5 percent between 2022 and 2032, driven primarily by demographic trends as the share of individuals ages 65 years and older increases due to rising survival rates caused by the development of vaccines and antibiotics, enhancements in surgical technology, and improvements in disease treatment regimes.

In fact, according to the National Council of State Boards of Nursing (NCSBN), there is already a shortage of nurses nationwide. According to the NCSBN's 2022 National Nursing Workforce Study, approximately 100,000 registered nurses (RNs) and 34,000 licensed practical and vocational nurses (LPNs and LVNs) have exited the workforce over the last two years due to stresses caused by

According to the 2022 American Community Survey, about **one in six county residents is 65 years or older**. This segment is expected to expand rapidly over the next several years, as the Boomer generation enters this cohort.

⁴⁷ JobsEQ 2023 Q1. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

the COVID-19 pandemic, and an additional 20 percent of respondents indicated that they were likely to leave nursing by 2027. 4849

Further exacerbating the projected nursing shortage is a drop in enrollment rates for nursing programs. According to the American Association of Colleges of Nursing (AACN), the number of students in entry-level baccalaureate nursing programs fell by 1.4% in 2022, ending a 20-year period of enrollment growth in programs designed to prepare new registered nurses. Declines were also recorded in master's degree (-9.4 percent) and Ph.D. programs (-4.1 percent).

Thousands of qualified applicants were turned away from nursing programs due largely to a shortage of faculty and clinical training sites. AACN was concerned that the rejection of thousands of graduate school applications could further limit the pool of potential nurse educators. Thus, investments in developing the pipeline for healthcare workers in the county will be crucial to ensuring that there will be an adequate supply of workers to meet the coming surge in demand over the next few years.

In 2023, California Governor Gavin Newsom signed a law raising the minimum wage of **healthcare workers** in the state from \$15.50 per hour to **\$25.00** per hour, to attract and retain workers in this sector. Wage increases began rolling out in 2024. Large health systems with more than 10,000 workers and dialysis clinics must implement the law fully by 2026, while rural independent hospitals and healthcare systems with a high mix of Medi-Cal and Medicare patients have until 2033 to implement the new minimum wage. Tribal clinics are exempted from the requirement.

Figure 23 illustrates a potential career pathway within the Healthcare industry. As shown, an entry-level worker employed as a Personal Care Aide earns an average annual salary of \$34,600. However, with additional training, education, and experience, an individual can progress to a career as a Certified Nursing Assistant (CNA) or Licensed Vocational Nurse (LVN), which command an average annual salary of \$43,400 and \$71,800, respectively.

Figure 23. Potential Career Pathway – Healthcare Industry⁵¹

Personal Care Aide \$34,600 Annual Salary High School Diploma or Equivalent

Certified Nursing Assistant \$43,400 Annual Salary Some College, No Degree Licensed Vocational Nurse \$71,800 Annual Salary Bachelor's Degree

Registered Nurse \$119,300 Annual Salary Bachelor's Degree

⁴⁸ Sixty-two percent of respondents reported an increase in workload during the pandemic.

⁴⁹ https://www.ncsbn.org/research/recent-research/workforce.page

⁵⁰ https://www.aacnnursing.org/news-data/all-news/article/new-data-show-enrollment-declines-in-schools-of-nursing-raising-concerns-about-the-nations-nursing-workforce

⁵¹ JobsEQ 2023 Q1. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

A MESSAGE FROM THE SANTA BARBARA FOUNDATION

The Community Health Worker/Promotores (CHW/P) workforce plays a crucial role in Santa Barbara County's healthcare landscape and the County's Workforce Development Plan.

Community health workers/promotores (CHW/Ps) provide culturally congruent, person-centered services that bridge different health and social services systems and improve the health and well-being of the people they serve. They are vital in promoting health, particularly in underserved, non-English speaking communities, and are uniquely positioned to bridge the gap between the healthcare system and diverse populations to achieve health equity. CHW/Ps perform a variety of formal roles, from supporting care transitions and referrals, to encouraging and educating patients on how to take care of their own health. In California, CHW/Ps are increasingly recognized as a critical part of the health care workforce and there are new opportunities for managed care plans (MCPs) to support the growth of this workforce so their members can benefit from CHW/P services.

The California Advancing and Innovating Medi-Cal (CalAIM) initiative creates new imperatives for MCPs to meet member needs by supporting nonclinical interventions to address health-related social needs and to reduce health inequities, including through partnerships with community-based organizations (CBOs) and providers. The Community Health Worker Initiative is designed to support MCPs and their partners, such as Federally Qualified Health Centers (FQHCs), CBOs, and other health and social service organizations, in effectively integrating CHW/Ps into programs that serve Medi-Cal members. The CHW/P Workforce in Medi-Cal Resource Center was developed through the California Health Care Foundation's Community Health Workers & Promotores in the Future of Medi-Cal project.

In 2019, the California Future Health Workforce Commission recommended scaling the CHW/P workforce to broaden access to preventive and social support services as well as team-based integrated primary and behavioral health care. In 2023, as one of The Santa Barbara Foundation's strategic Initiatives, the Foundation began convening the Central Coast Community Health Worker Capacity Building Collaborative that is committed to furthering the integration of CHW/Ps into care delivery systems in Santa Barbara County, Ventura County and San Luis Obispo Counties. The Collaborative partners with the Public Health Department, health care and behavioral health service providers, promotores networks, and managed care plans to expand the county's CHW/P workforce, ensuring broader access to preventive care, social support services, and integrated primary and behavioral health care.

We need to raise awareness of critical positions in hospitals outside doctors and nurses, like jobs for radtechs, surgical techs, even administrative positions. Workforce development boards...are better positioned to reach the local communities.

TERI HOLLINGSWORTH, VP OF HUMAN RESOURCES & EDUCATION SERVICES,
 HOSPITAL ASSOCIATION OF SOUTHERN CALIFORNIA



Defense, Aerospace & Transportation Manufacturing Industry Pathways

The Defense, Aerospace & Transportation Manufacturing (DATM) industry poses a significant growth opportunity for highwage jobs due to high levels of public and private investments planned over the next few years.

As mentioned in the industry cluster analysis, DATM industry jobs have grown by 8.9 percent

over the last two years and are poised to surge in the years to come. Examples of local companies in the DATM space include⁵²:

- Space Exploration Technologies Corp. (SpaceX), a Hawthorne-based designer and manufacturer
 of advanced rockets that frequently launch from Vandenberg Air Force Base.⁵³
- Launchpoint, a Goleta-based startup that develops electric engine systems for drones.
- Freedom Photonics, a Santa Barbara County-based developer of highly efficient watt-class direct diode LIDAR for remote sensing, which was awarded \$1.6 million from NASA to develop technologies to support long-term exploration on the Moon and in space.⁵⁴
- Relativity Space Inc., a manufacturer of 3D-printed rockets that carry satellites into space, which recently received a \$30.7 million tax credit and committed to creating at least 1,044 fulltime jobs between their Long Beach and Lompoc facilities.⁵⁵

In addition, **Phantom Space Corporation**, a startup based in Tucson, Arizona offers launch services and spacecraft design and construction and maintains a presence at Vandenberg. Phantom Space's goal is to mass-manufacture small rockets and to become "the Henry Ford of space."

Raytheon is a large government military contractor with a presence in Santa Barbara County, which manufactures missiles, surveillance, and other high tech military systems. Raytheon maintains operations in Goleta dedicated to Infrared Detection Products, Space and Airborne Systems, Electronic Warfare Systems, and Remote Sensing. According to the *Pacific Coast Business Times*, Raytheon owned about 353,000 square feet of facility space in the Goleta area and employed approximately 1,400

⁵² Examples of local companies are meant to be descriptive rather than a comprehensive or robust identification of all industry employers in the county.

⁵³ While SpaceX announced plans to move its corporate headquarters from Hawthorne, California to Starbase, Texas in July 2024, the company is expected to retain significant operations in the California region.

⁵⁴ https://www.nasa.gov/news-release/nasa-partners-with-american-companies-on-key-moon-exploration-tech/

⁵⁵ https://www.gov.ca.gov/2022/06/17/thousands-of-new-california-jobs-in-cutting-edge-industries/

workers in its Intelligence & Space division as of 2022, with plans to hire an additional 200 workers; 400 of those 1,600 positions were engineering jobs, some of Raytheon's best-paying positions.⁵⁶

In recent years, considerable investments have been made in the local DATM industry. In June 2022, more than \$178 million in tax credits were extended to qualifying businesses in industries expected to shape the future, including space exploration, artificial intelligence, and agriculture technology. The California Competes Tax Credit was expected to fund more than 7,600 new full-time jobs in California and to bring more than \$1.78 billion in new investments to the state over the next five years.

Subsequently, in 2023, Cal Poly SLO and Cal Poly Pomona received \$10 million through the Consolidated Appropriations Act (H.R. 133) to advance unmanned vehicle and drone technology. Cal Poly has a partnership with the Air Force Research Laboratory (AFRL) that allows engineering students to conduct general research on a general aviation airplane that is being modified to fly as an unmanned aerial vehicle (UAV).⁵⁷

As one of only a few established U.S. orbital launch sites, Vandenberg is ideally positioned as a West Coast hub for commercial and military **space operations**. Companies such as Phantom Space and Relativity Space are expanding their presence at Vandenberg, potentially adding 500 new jobs by 2028. A commercial Mission Development Zone is also planned. In addition, the U.S. Space Force plans to invest \$1 billion over the next five years in upgrading the launch ranges at Cape Canaveral and Vandenberg to support 300 launches annually.

Additionally, in 2023, the cities of Lompoc and Santa Maria, UC Santa Barbara (UCSB), Allan Hancock College (AHC), and Santa Barbara City College (SBCC), officially joined the partnership between Space Launch Delta 30, REACH, the Governor's Office of Business and Economic Development, Cal Poly, Deloitte, and Santa Barbara County, which aims to support the growing Central Coast space industry at and around Vandenberg Space Force Base. The partnership developed a Commercial Space Master Plan outlining key steps in growing the industry, and established a state-led space industry task force. The goals of the plan are to attract space industry activities to the Central Coast, to modernize and invest in infrastructure, and to strengthen the Central Coast space identity.

According to the Vandenberg Commercial Space Master Plan, the global space economy will be valued at **more than \$1 trillion** by 2030. Growth is expected to generate high-paying job opportunities in science, technology, engineering, and mathematics (STEM) fields such as engineering, software, design, analysis as well as marketing, logistics, advanced manufacturing, and construction. The commercial space activity coincides with NASA's ambitions to commercialize low Earth orbit, to return to the Moon

⁵⁶ https://www.pacbiztimes.com/2022/06/23/raytheons-hiring-spree-takes-flight-with-200-new-goleta-jobs/

⁵⁷ https://www.calpoly.edu/news/congressman-celebrates-cutting-edge-work-and-partnership-air-force-research-lab?utm_source=newsletter&utm_medium=email&utm_content=tour%20of%20an%20unmanned%20aerial%20ve hicle&utm_campaign=recap_may-23

⁵⁸ https://reachcentralcoast.org/partnership-to-boost-californias-central-coast-space-ecosystem-expands-to-include-cities-higher-education-institutions/

and create a sustained presence for lunar operations, and to advance Earth science under the Earth System Observatory program.

The plan identified opportunities to recruit and attract space industry market entrants with over \$1 million in funding that align to the key growth areas for Vandenberg, and to develop additional partnerships with local universities and community colleges to develop aerospace engineering programs, and to offer services beyond launch to additional potential domestic and foreign government organizations. The plan identified opportunities for Vandenberg to expand its share of the market for polar orbit, highly elliptical orbit, and sun-synchronous satellite

The SLC-6 construction project is expected to bring in 200 mechanic and technician jobs to run procedures and to launch the new Delta-4's. Entry-level technician jobs only require minimal experience in mechanics, while entry-level engineering positions require a bachelor's degree in engineering.

launches, as well as to expand beyond launch and missile testing toward opportunities in remote sensing and data and analytics. 59 60

Thus, DATM poses a significant growth opportunity for Santa Barbara County due to significant anticipated investments in aerospace technologies, including technological advances related to the deployment of new rockets and new launchpads and other technologies. U.S. military activity at Vandenberg is also expected to accelerate over the next few years as missile defense technology continues to evolve, providing opportunities for new construction, as well as an increased need for onbase workers to field and test new capabilities. Upticks in both public and private aerospace and defense activities are also expected to drive demand in related supply chains for components, hardware, wiring, and commodities like steel.

Below is a potential career pathway within the DATM industry. Developing pathways within the DATM industry will be imperative to embracing this significant growth opportunity, as some county employers in the DATM industry currently report challenges in hiring locally at the senior levels.

Figure 24. Potential Career Pathway – DATM Industry⁶¹

Labor& Material Mover \$45,500 Annual Salary High School Diploma or Equivalent

Electromechanical Equipment Assembler \$51,700 Annual Salary Some College, No Degree Engineering Technologist or Technician \$81,000 Annual Salary Bachelor's Degree

Electrical or Electronics Engineer \$161,800 Annual Salary Bachelor's Degree

The Santa Barbara South Coast and Santa Maria Valley Chambers of Commerce hosted three meetings of each of eight industry sector roundtables over a six-month period, which explored issues impacting local businesses. Based on the roundtable feedback, the County is working with Vandenberg to identify

⁵⁹ https://reachcentralcoast.org/wp-content/uploads/Commercial-Space-Master-Plan.pdf

⁶⁰ https://reachcentralcoast.org/partnership-to-boost-californias-central-coast-space-ecosystem-expands-to-include-cities-higher-education-institutions/

⁶¹ JobsEQ 2023 Q1. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

opportunities to attract more visitors to the base to support the county's tourism and hospitality businesses. To this end, the County plans to assist in disseminating rocket launch information to the public, and to continue to collaborate with REACH to support Vandenberg's needs.



Offshore Wind Industry Pathways

Offshore wind has been viewed as a key tool in the state's strategy to achieve 100 percent clean electricity and carbon neutrality, and as a potentially significant source of new jobs within Santa Barbara County.

In February 2023 the Biden administration announced goals to deploy 15 gigawatts (GW) of floating offshore wind capacity by 2035, and to reduce the costs of floating offshore wind energy by over 70 percent by 2035. 62 Subsequently, in May 2023 the California Energy Commission (CEC) adopted goals to deploy up to

5 GW of floating offshore wind capacity by 2030 (and 25 GW of capacity by 2045).⁶³ Thus, stakeholders throughout the U.S. have taken a great interest in the economic and employment potential of these new planned offshore wind developments.

According to a recent research report prepared for the California Workforce Development Board, the California offshore wind industry will likely be able to fill its workforce training needs through negotiated contracts with unions, providing access to the state's highly effective apprenticeship system. However, employment growth within the state will likely be constrained by several factors, including:

- Lack of availability of suitable port facilities.
- Lack of adequate transmission infrastructure to transport power from offshore wind farms to the shore, and from the shore to the grid.
- Onerous environmental permitting regulations due in part to California's stringent offshore emissions standards.
- Supply-side and demand-side issues arising from difficulties arranging supply chain logistics and debt financing issues.

https://www.whitehouse.gov/briefing-room/statements-releases/2023/02/22/fact-sheet-biden-harris-administration-announces-actions-to-expand-offshore-wind-nationally-and-harness-more-reliable-affordable-clean-energy/#:~:text=The%20President%20has%20also%20set,floating%20offshore%20wind%20by%202035.
 https://www.energy.ca.gov/news/2023-05/california-continues-advance-offshore-wind-new-report-detailing-options

Environmental management should be thought of as not just an environmental topic, but as an economic topic, as an industry unto itself that has a significant boom coming. Those jobs could be based out of Santa Barbara County or not, depending on whether Santa Barbara County really considers this field as a jobs opportunity unto itself rather than just a sidebar for the main employment opportunities in construction and installation of wind farms.

ROBERT COLLIER, EXTERNAL
RELATIONS DIRECTOR AT
CIERCO WIND ENERGY

While the Central Coast region was initially considered as a potential site for a new mega-port offshore wind facility, developers concluded that such a facility would be more appropriately sited elsewhere in the state. Thus, job creation from the offshore wind industry in the Central Coast region could primarily be limited to service providers that build and assemble floating offshore platforms, operate and maintain turbines, and provide environmental reviews for offshore wind projects. ⁶⁴

According to Jeremy Goldberg, Executive Director of the Central Coast Labor Council, the Council is exploring whether a separate joint job training program can or should be developed for offshore wind. The program would possibly be based around construction, manufacturing, and maintenance for offshore wind turbine components.

In addition, according to Robert Collier, External Relations Director at CIERCO Wind Energy, environmental management is a potential growth area for the offshore wind industry that could generate

billions of dollars over the next ten years. Millions of dollars have already been budgeted toward environmental reviews for the CADEMO 60 MW Project, an offshore wind turbine project sited in California state waters off Vandenberg Space Force Base.

Researchers at California Polytechnic State University estimate that the CADEMO project is likely to generate a total of 1,840 FTE jobs during the development and construction period, of which 697 FTE are likely to be local; as well as an additional 20 annual jobs in operation and maintenance, of which 16 will be local. In addition, the project is expected to create an additional 225 FTE jobs via induced effects during the construction phase, and an additional 7 local FTE jobs during the operations and maintenance phase. ⁶⁵

In November 2023 CADEMO announced that it had entered into a community benefits agreement (CBA) with the Santa Ynez Chumash tribe. The goals of the CBA include the development of culturally sensitive environmental management practices and workforce plans for local offshore wind projects as well as the Chumash Heritage National Marine Sanctuary. Both projects – as well as local offshore oil decommissioning work – are expected to generate significant demand for environmental review services.

⁶⁴ "New report on lessons learned in High Road Training Partnership." July 5, 2023. https://cademo.net/trial-run-for-californias-offshore-wind-workforce/

⁶⁵ https://cei.calpoly.edu/cal-poly-faculty-cyrus-ramezani-phd-and-mahdi-rastad-phd-publish-economic-and-employment-impact

Under the terms of the CBA, the Chumash tribe plans to collaborate with regional stakeholders to develop a two-year associate degree program specific to the offshore wind industry, to help develop the skills needed for offshoring technicians and environmental review technicians.

To this end, Mr. Collier believes that Santa Barbara County could play a critical role in helping foster dialogue between the unions and the community colleges, and in helping strengthen connections to the Bren School of Environmental Science & Management at UCSB to develop suitable curricula to meet future demand for environmental review services for offshore wind projects. 66



Examples of local companies in the Offshore Wind and Manufacturing space include⁶⁷:

- CIERCO Wind Energy, a Palm Springs-based offshore wind firm responsible for the CADEMO offshore wind project.
- BayWa-re, a multinational renewable energy developer responsible for the Strauss Wind Project (formerly known as the Lompoc Wind Project), Santa Barbara County's first renewable wind project.⁶⁸
- **RWE Renewables**, a multinational offshore wind firm that recently secured offshore leasing rights in the nearby Morro Bay region.⁶⁹

⁶⁶ In the 2023-2024 school year, fall graduate enrollment in the Bren School of Environmental Sciences fell by 6 percent as compared to the prior academic year, 9 percent lower than the high of 245 recorded in the 2021-2022 school year. https://bap.ucsb.edu/institutional-research/ucsb-information-center/enrollment-dashboard

⁶⁷ Examples of local companies are meant to be descriptive rather than a comprehensive or robust identification of all industry employers in the county.

⁶⁸ https://us.baywa-re.com/en/wind/strauss-wind-project

⁶⁹ https://www.rwe.com/en/press/rwe-renewables/2022-12-07-california-offshore-auction/



Electronics Manufacturing Industry Pathways

Santa Barbara County is home to a worldclass research university with superior electronics manufacturing capabilities. Research from UCSB's Nanofab can support employment growth and entrepreneurship within the county.

In recent years, significant investments have been made in advanced manufacturing technology in the county.

In October 2023, \$26.9 million was awarded to 16 U.S. research and industry institutions under the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act, with the goal of accelerating the development and manufacturing of microelectronics in the United States. The award funded the establishment of eight Microelectronics Commons regional innovation hubs, two of which will be centered in California. UCSB's Nanofabrication facility (Nanofab) is a part of the California Defense Ready Electronic and Microdevices superhub (California DREAMS). The federal government plans to spend approximately \$2 billion over the next five years on this initiative. ^{70 71 72}

The Nanofab employs various types of technical staff in its semiconductor manufacturing operations, including wafer technicians, manufacturing engineers, and microchip designers in microchip manufacturing; equipment maintenance staff; facilities maintenance staff; and system assembly/testing staff.

Entry-level operator positions do not require a high school diploma or prior experience. Technician jobs require additional education (a high school diploma or an associate degree at minimum) and at least some experience, while engineer jobs require a minimum of a bachelor's degree in a related field or significant prior experience.

UCSB's Nanofabrication facility offers 12,000 sq. ft. of class 100 and 1000 clean floor space to academic researchers and industry partners and is equipped with state-of-the-art optical and electron beam lithography, deposition, and metrology tools. Over 25 advanced semiconductor companies have been formed through use of the facility, and over 60 companies have used the facility over the last year.

⁷⁰ https://carbajal.house.gov/news/documentsingle.aspx?DocumentID=1672

⁷¹ https://engineering.ucsb.edu/news/chips-act-funding-fuel-microelectronic-technology-research

⁷² https://quantumfoundry.ucsb.edu/

Figure 25 illustrates a potential career pathway in the electronics manufacturing industry cluster.⁷³

Figure 25. Potential Career Pathway – Electronics Manufacturing Industry⁷⁴

Miscellaneous Assembler or Fabricator \$47,700 Annual Salary High School Diploma or Equivalent

Machinist \$59,900 Annual Salary Some College, No Degree

First-Line Supervisor,
Production & Operating
Workers
\$82,600 Annual Salary
Bachelor's Degree

Industrial Production
Manager
\$137,200 Annual Salary
Bachelor's Degree

Nanotechnology is expected to drive technological innovation in three industries in the years to come: Materials Science (Building & Design), Nanomedicine, and Device Engineering (Electronics, Wearables). In industry, government, and academia, new research is being conducted in nanotechnology and materials science to create stronger, more durable, lighter, and even self-healing materials through nano-scale engineering. In the future, such materials will be increasingly incorporated into the construction of infrastructure such as bridges, roads, and buildings.

Within medicine, researchers have developed nanobots – robots that can be used to deliver drugs to precise locations within the body. Nanotechnologies have also been employed in imaging and diagnostic tools for bone and neural tissue engineering, implantation of bionic body parts, and prosthetics, and have been employed in the creation of gene sequencing technologies and the 3-D printing of living tissues via additive manufacturing technology.

Finally, within the device engineering segment, nanotechnologies have been employed in the manufacture of electronic devices such as laptops, desktop computers, cell phones, televisions, and electronic sensing and communications systems used in transportation and satellites, as well as wearable electronics incorporating biometric technology.⁷⁵

In addition to the Nanofab, UCSB houses a National Science Foundation-funded Quantum Foundry, a developer of next-generation materials and interfaces hosting the coherent quantum states needed to power quantum-based electronics.

The case studies on the following page provide examples of two advanced manufacturing startups that were launched based on research performed at UCSB and commercialized by UCSB faculty.

⁷³ Companies in this industry are defined as those that report their primary line of business under NAICS code 344, Computer and Electronic Product Manufacturing.

⁷⁴ JobsEQ 2023 Q1. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2023).

⁷⁵ https://www.forbes.com/sites/chuckbrooks/2022/05/31/3-key-areas-where-nanotechnology-is-impacting-our-future/?sh=28838ba56741

CASE STUDY: Transphorm Inc., a Renesas company

Transphorm Inc. is a Goleta-based manufacturer of ultra-efficient power conversion modules based on proprietary Gallium Nitride (GaN) technology and serves an example of a successful public-private partnership that has transitioned U.S. government-funded technology to commercialization and manufacturing.

Transphorm was co-founded by UCSB researcher Primit Parikh and UCSB professor Umesh Mishra in 2007. Transphorm's technology was invented under the sponsorship of the U.S. Office of Naval Research (ONR) and the Defense Advanced Research Projects Agency (DARPA) at UCSB. Transphorm partnered with ONR to commercialize the technology, to grow into epiwafer sales for U.S. Department of Defense customers, and to expand into the fast-growing RF/5G markets.

In June 2024, Transphorm Inc. was acquired by a subsidiary of Renesas Electronics Corp. of Tokyo, Japan, a global leader in microcontrollers, analog, power, and SoC products, for \$339 million.

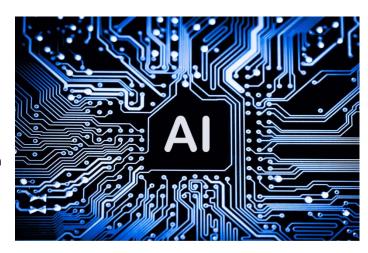
CASE STUDY: Soraa

Soraa was founded in 2008 by UCSB professors Dr. Shuji Nakamura, Dr. Steven DenBaars, and Dr. James Speck, out of UCSB's continued innovation in the field of LEDs. Soraa has pioneered the growth of LED crystals on a gallium nitride substrate (GaN on GaN), creating more efficient, sharper, warmer light, and today, Soraa is the world's leading developer of solid-state lighting built on pure gallium nitride substrates. Headquartered in Goleta and Fremont, Soraa has received over \$100 million in funding from NEA, Khosla Ventures, and NGEN. Headquartered in Goleta and Fremont and has created over 250 jobs in California.¹

Both Dr. DenBaars and Dr. Nakamura are seasoned entrepreneurs. In addition to Soraa, Dr. DenBaars co-founded Nitres, Inc., the first GaN LED startup in the U.S., in 1996, which was acquired by Cree, Inc. in 2000. DenBaars also co-founded SLD Laser, a pioneer in the development of blue lasers and laser lighting products, which was acquired by Kyocera Corporation in 2021.

Dr. Nakamura – a Nobel Prize recipient – also co-founded a Palo Alto-based startup called Blue Laser Fusion, Inc. In July 2023, Blue Laser Fusion raised \$25 million in venture capital from JAFCO Group and the Mirai Creation Fund.

Santa Barbara county is home to Google's Quantum AI campus, which was built to realize Google's vision of creating the world's first error-corrected quantum computer, and Google's first quantum data center, which will make best-in-class quantum computers available to the world. Google's Quantum AI campus is staffed with various software engineers, hardware engineers, and research scientists.



According to the *Pacific Coast Business Times*, the Central Coast region is a thriving

tech hub for local AI companies, with 12 AI and machine learning companies receiving venture capital funding in the first eight months of 2023.⁷⁶ AI and robotic technologies are expected to have a significant impact on workforces nationwide as these technologies gain mainstream acceptance over the next few years.

The following section of the report explores the current education and training climate in Santa Barbara County, including a summary of education and training resources currently available to jobseekers in the county.

The lack of qualified workers...is what's going to drive...artificial intelligence. I don't think you will have companies in downtown Santa Barbara saying, 'I really need to find a way to lay off half my workforce.' I think what you will have is companies saying, 'I don't have enough workers to get the work done that I need, so I should figure out how I can use [AI] to help me be more efficient in my company.

JAIME FALL, WORKFORCE & ECONOMIC STRATEGIES DIRECTOR, VENTURA ECONOMIC DEVELOPMENT COLLABORATIVE

Education & Training



According to the California
Department of Education,
students in Santa Barbara County
face significant academic and
structural challenges. In the 20222023 school year, 14 percent of
students enrolled in county
schools were homeless, as
compared to 4 percent
statewide.⁷⁷

Furthermore, 6 in 10 students in the county failed to meet state standards in English language arts/literacy (ELA), and 7 in 10

students in the county failed to meet state standards in mathematics (as measured by statistics from the Smarter Balanced Summative Assessments tests, which are administered to students in grades 3 through 8, and grade 11, to assess progress toward college and career readiness).⁷⁸

As previously noted, Santa Barbara County residents exhibit lower levels of educational attainment compared to the statewide average, with nearly one in five (19.5 percent) county residents holding less than a high school diploma, compared to approximately one in six (16.9 percent) California residents. Thus, addressing barriers to educational attainment is crucial to improving worker outcomes within the county.

Santa Barbara County is home to several public and private higher learning institutions, including UC Santa Barbara (UCSB), Santa Barbara City College (SBCC), and Allan Hancock College (AHC). In addition, Santa Barbara County residents can also access California Polytechnic State University and Cuesta College in neighboring San Luis Obispo County.

UCSB was ranked as the number 5 public university in the U.S. by *Forbes* magazine in 2023, and as the number 12 public university in the U.S. by U.S. News & World Report in its 2023-2024 Best Colleges list. UCSB offers more than 200 majors, degrees, and credentials, including over 90 undergraduate majors and over 50 graduate programs. In the 2022-2023 school year, UCSB awarded 7,061 bachelor's degrees, 541 master's degrees, 356 doctorates, and 79 teaching credentials.⁷⁹

⁷⁷ https://dq.cde.ca.gov/dataquest/DQCensus/HmlsEnrByDTLevels.aspx?agglevel=County&cds=42&year=2022-23

⁷⁸ https://caaspp

 $[\]underline{elpac.ets.org/caaspp/DashViewReportSB?ps=true\&lstTestYear=2023\&lstTestType=B\&lstGroup=1\&lstSubGroup=1\&lstSchoolType=A&lstGrade=13\&lstCounty=42\&lstDistrict=00000\&lstSchool=0000000$

⁷⁹ Note that some degree recipients had multiple majors and received multiple degrees. https://www.ucsb.edu/about/facts-and-figures and https://bap.ucsb.edu/institutional-research/ucsb-information-center/degrees-conferred

AHC is a public community college with campuses in Santa Maria, Lompoc Valley, Santa Ynez Valley, and the Vandenberg Space Force Base. Approximately 11,500 students are enrolled at the college. In the 2022-2023 school year, AHC awarded 1,236 students 1,971 associate degrees and 1,309 certificates of achievement across 101 different majors.

Nearly 40 percent of AHC's Class of 2023 received the Hancock Promise, a program that provides the first year of college tuition-free for local high school students. The program is open to all students enrolling immediately after graduating from a high school located in the Allan Hancock Joint Community College District, as well as to students who are homeschooled or completed their GED through a local education program within the district.

In October 2023, AHC and Cuesta College announced that they were partnering on a campaign to bring four-year degrees to their colleges (a B.S. in Education for Cuesta College, and a B.S. in Applied Professional Skills for AHC). However, due to the length of the approvals process, the earliest that such programs could commence would be fall 2025.⁸⁰

SBCC is a public community college with one main campus and two satellite campuses in Santa Barbara. SBCC offers both credit and noncredit programs, including associate degrees, certificates of achievement, skills competency awards, department awards, certificates of completion, and certificates of competency. In the 2022-2023 school year, SBCC awarded 3,629 associate degrees and certificates to 1,472 graduates.⁸¹ In addition, SBCC's School of Extended Learning offers educational and community programs that advance county residents' career and

The Central Coast is a higher education desert. With no affordable and accessible state universities in our region, students are forced to choose whether to prioritize family obligations over education or obtain the funding to uproot and move far from home to complete a bachelor's degree ... Our colleges feel that efforts to address the issue and create sustainable baccalaureate programs in the region have languished.

- KEVIN G. WALTHERS, SUPERINTENDENT/ PRESIDENT OF ALLAN HANCOCK COLLEGE

life skills, including programs targeted at GED preparation, career skills development, English as a Second Language, parenting, health and safety, home economics, and general enrichment. Some of these extended learning programs are offered tuition-free to qualifying students.⁸²

To obtain a better understanding of local educational opportunities, an analysis was conducted of the programs offered by SBCC that provided pathways to better-paying jobs for the local workforce, particularly in high-growth industry clusters like Agriculture and Building and Design. The results of the analysis are summarized in Appendix D: SBCC Pathways Analysis.

In this analysis, BW Research gathered information on average median earnings by degree type (bachelor's degrees, associate degrees, and certificates) and program type from the U.S. Department of

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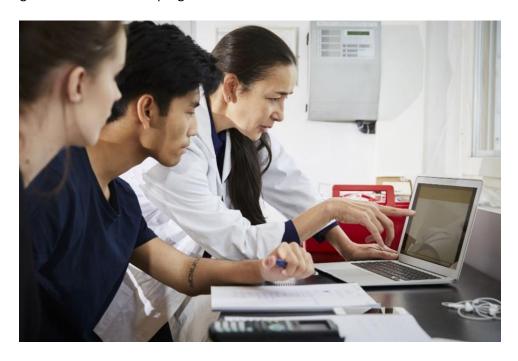
⁸⁰ https://www.hancockcollege.edu/news/newsreleases/unitedcentralcoast.php

⁸¹ https://www.noozhawk.com/sbcc-celebrates-commencement-as-speakers-share-messages-of-gratitude-perseverance/

⁸² https://www.sbcc.edu/extendedlearning/

Education's 2023 College Scorecard dataset. The associate degree and certificate program types were then ranked by average median earnings.

A search was then conducted for SBCC programs that were *comparable* to the top-earning program types in the College Scorecard Data, and average median earnings from the College Scorecard dataset were mapped to the SBCC programs to provide an estimate of the *national average median earnings four years after graduation* to estimate what earnings students of these programs could expect upon graduation from these programs.



As shown in Appendix D: SBCC Pathways Analysis, students who complete SBCC's **Registered Nursing** program can expect to earn \$67,366 four years after graduation, while students that complete SBCC's Engineering program can expect to earn \$61,961 four years after graduation. Other SBCC programs in

Automotive Services, Construction Services, and Computer Sciences also offer pathways to higher-paying jobs with expected median earnings four years after program completion exceeding the 2022 median income of the citizen employed population 16 years and over in Santa Barbara County, \$58,139.83



Our students...don't know that there's a company here that hires 80 engineers, there's a company here that needs manufacturing technicians and the hospital is looking for accountants...It's just getting the word out...and students knowing, oh, I don't have to go live in the Bay Area or L.A. or San Diego or out of state, I think that that's a huge opportunity to reinforce our workforce with the proper information.

- ALEJANDRA MAHONEY, DIRECTOR OF EDUCATION AND WORKFORCE DEVELOPMENT AT ECONALLIANCE

⁸³ United States Census Bureau. American Community Survey 5-Year Estimates (2022).



In addition, starting January 2023, Cuesta College launched a new 18month aviation maintenance technician program for students interested in obtaining airframe and powerplant mechanics (A&P) certifications.

The program offers both in-class instruction as well as hands-on experience working on decommissioned aircraft at the San Luis Obispo airport. Furthermore, there are currently no prerequisites for admission.⁸⁴ According to the BLS,

aircraft mechanics and service technicians' employment is projected to grow by 12 percent, and avionics technicians' employment is projected to grow by 10 percent, a higher-than-average level of growth.

The A&P license is one of the few paths [where] you don't need to go to a four-year school, and you don't need to move away. if this program is here, you can get this license, and once you have that license, you are pretty much employable in a variety of industries, even aerospace and beyond.

- BILL BORGSMILLER, PRESIDENT & CEO, ACI JET

Despite these educational opportunities, stakeholders across a variety of industries echoed the need to generate awareness regarding countywide career pathways and lattices to higher-paying industries. Some respondents cited cultural barriers as a contributor to the lack of awareness amongst high school students.

Within the healthcare industry, numerous stakeholders also cited a dire need for additional resources in the allied health space to address gaps in the pipeline for healthcare workers in the county. These gaps encompass a lack of awareness regarding healthcare job opportunities amongst both potential jobseekers and existing entry-level healthcare workers, as well as a shortage of available educational programs, certification programs, faculty, and clinical placement sites available to students.

According to Teri Hollingsworth, Vice President of Human Resources and Education Services at the Hospital Association of Southern California, a contributing factor to faculty shortages is the disparity in pay that occurs between faculty and hospital practitioners. The lack of availability of clinical placement

⁸⁴ https://www.newtimesslo.com/news/cuesta-college-will-prepare-students-for-jobs-in-airplane-maintenance-fields-starting-in-2023-12914045

sites for students also caps school enrollment, as it limits the number of graduates that medical programs can produce.

Thus, local employers like UCLA Health have stepped up to fill gaps in the educational landscape. During the COVID-19 pandemic, when faced with a shortage of medical assistants, UCLA Health created a Medical Assistant program that has soared in popularity over recent years. In addition, the Lompoc Valley Medical Center conducts Certified Nurse Assistant (CNA) training programs biannually to address CNA staffing needs.

I think placement is an area [that is] very challenging and very time-consuming...We need to develop a bigger, more formal structure to offer students pre-apprenticeship programs or other types of work-based learning programs, because we know that when students are engaged in work-based learning, they actually have a higher completion rate as far as their academic studies are concerned.

- CAROLA SMITH, VP OF EXTENDED LEARNING, SANTA BARBARA CITY COLLEGE

Other local companies have also partnered with local higher learning institutions to fill staffing needs. Some local companies offer internships to

We need more schools up and down the Central Coast, from Santa Barbara down to Orange County, in the allied health space.

- ANONYMOUS EXCERPT FROM THE STAKEHOLDER INTERVIEWS students of Cal Poly and UCSB, and those students who excel may be offered permanent positions at the end of their internships.

In addition, the SBCWDB has partnered with EconAlliance, a local economic development organization, and UCSB, to develop an internship program that allows 19–24 year olds to explore local job opportunities. According to Alejandra Mahoney, Director of Education and Workforce Development at EconAlliance, the program aims to

place 50 interns in local businesses, and that goal had been halfway reached as of October 2023.

Organizations such as the Ventura Economic Development Collaborative (Ventura EDC) have also contributed to regional workforce development efforts. According to Jaime Fall, Workforce & Economic Strategies Director of the Ventura EDC, the organization is creating an upskilling roundtable of learning leaders in Ventura County, focused on building the skills of the local workforce and creating a peer learning network to help companies do a better job of creating, expanding, and improving workforce development programs. In addition, the Ventura EDC provides local jobseekers with training in basic computer skills and provides certifications for cloud technologies.

It may be more challenging to develop an apprenticeship program because we have a lot of students who cannot afford to stay in Santa Barbara upon completion of their programs. So, in that regard, the investment that an employer makes into an apprenticeship program may not pay off as well as in other locations where there might be less transiency.

- CAROLA SMITH, VP OF EXTENDED LEARNING, SANTA BARBARA CITY COLLEGE

CASE STUDY: Lompoc Valley Medical Center

Lompoc Valley Medical Center's Comprehensive Care Center, a nursing facility located in the North Santa Barbara region, offers Certified Nurse Assistant (CNA) training programs at their facility on a biannual basis. This program offers students comprehensive training as a CNA, and upon completing the training program, students will take the California state CNA certification exam.

The training program is open to all applicants 18 years or older with a high school degree or GED equivalent, and students who complete the training program and certification exam are encouraged to apply for CNA positions at Lompoc Valley Medical Center's various offices in the region.

However, in general, according to the Santa Barbara County Education Office (SBCEO), Santa Barbara County has struggled to identify local employers who will commit to hosting an intern or providing onthe-job training. It has also been difficult to identify enough CTE-credentialled instructors due to the significant difference in wages between teaching positions and jobs in industry. However, the SBCEO continues to advance efforts to promote awareness of local employment opportunities amongst the local population via dissemination of case studies and the facilitation of connections between local businesses and students. In addition, programs such as SBCC's Green Gardener Program help to accommodate the needs of non-traditional learners by integrating specific skills into vocational training.

SBCC's Green Gardener
Program integrates English
language skills into vocational
training for individuals seeking
to start gardening or landscape
contracting businesses, with ESL
instructors providing English
language skills training to nonnative English language
speakers, particularly in the
north county region.



Various stakeholders identified the critical need for additional higher education for the county's workforce. For example, Brittany Odermann, Deputy County Executive Officer for the Santa Barbara County Executive Office, emphasized the importance of developing local pathways to four-year degrees in addition to UCSB. Healthcare industry stakeholders also emphasized the importance of short-term technology skills and soft skills training for entry-level and transitioning workers and indicated that hybrid and online learning methods have been successful in reaching populations that previously would not have been able to access such programs due to lack of access to transportation.

However, education and training providers such as the SBCEO have indicated that it remains difficult to identify CTE-credentialled faculty, as those who are qualified are typically already employed in higher-paying jobs in industry.

Entrepreneurship & Business Formation



Beyond supporting efforts to attract, retain, and upskill local labor, the County must incentivize investors to committing resources to starting new businesses or growing existing businesses in the region. Thus, it is important to consider the partner and community resources available to support the growth of new businesses in Santa Barbara County, and to identify gaps in the local entrepreneurship ecosystem.

U.S. Census data shows new business applications in Santa

Barbara County dropped by 7 percent year-over-year in 2022.⁸⁵ New patent assignments in the county have also fallen over the last ten years.⁸⁶

5,000 4,000 3,493 3,000 2,000 1,000 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Figure 26. New Business Applications in Santa Barbara County (2012 – 2022)87

⁸⁵ United States Census Bureau. Business Formation Statistics (2012 – 2022)

⁸⁶ U.S. Patent and Trademark Office (USPTO). New Patent Assignments (2012 – 2022)

⁸⁷ United States Census Bureau. Business Formation Statistics (2012 – 2022)

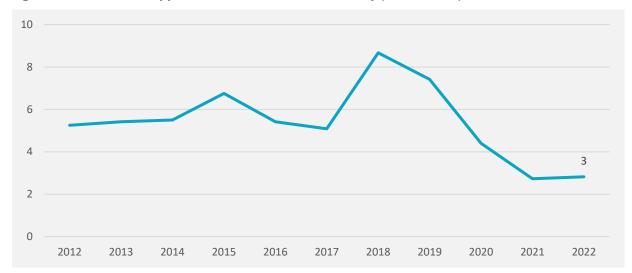


Figure 27. New Patent Applications in Santa Barbara County (2012 – 2022)⁸⁸

While three in five local employers surveyed rated Santa Barbara County as a good or excellent place to conduct business, only just over one-third rated the county as an "excellent" or a "good" place to start a new business, while one-fifth rated the county as a "poor" or "extremely poor" place to start a business. According to county stakeholders, some of the challenges associated with starting or growing a business in the county include difficulty in accessing capital, and onerous regulations in the Central Coast region. According to one stakeholder, building permitting costs are lower in other states, and even within California, other regions outside the county have streamlined regulations to increase competitiveness in attracting new businesses and helping existing businesses grow and expand within their borders.

A lot of my clients are growing, but growth is...hindered by...access to capital to fund that growth...because of the very, very tight commercial market and...those properties sitting there, inflationary costs, all those things, the increase in interest rates means that many of the community banks have either slowed or stopped lending for small businesses. We can't grow our businesses here without that access to capital to help us fund it.

- **SANDRA DICKERSON,** OWNER, YOUR PEOPLES PROFESSIONALS

According to Janet Garufis, President & CEO of Montecito Bank & Trust, after the COVID-19 pandemic, the business environment in Santa Barbara County was challenging for small businesses. Small businesses in the county encountered difficulties opening new offices, obtaining permits, and obtaining loans due to the uncertainty surrounding the redeployment of liquidity following the pandemic, as well as the attendant increases in interest rates. However, as a locally owned community bank, Montecito Bank & Trust supported Santa Barbara's small businesses by providing access to capital through a newly

⁸⁸ U.S. Patent and Trademark Office (USPTO). New Patent Assignments (2012 – 2022)

established Business Banking Division, which focuses on making access to capital easy and fast for small businesses. In addition, Montecito Bank & Trust has also been heavily involved in supporting the entire community through unique programs such as Anniversary GrantsSM and Community Dividends®, which annually award \$1 million to more than 150 local nonprofits.

In addition, the Goleta Entrepreneurial Magnet (GEM) provides support for the startup community. GEM operates as a partnership between UCSB and the City of Goleta, and offers professional services referrals, mentorship/advisor network referrals, angel network referrals, and startup assistance grants to qualifying businesses. Eligible applicants include seed-stage startups incorporated within the last five years and individuals and/or teams seeking to incorporate within the timeframe of the grant, including UCSB spin-offs, startups or teams based in Goleta, and startups or teams intending to relocate to the Goleta area. GEM is now prioritizing outreach to women and minority entrepreneurs.

GEM provides grants of up to \$5,000 over a period of six months, which can be applied to a variety of needs, including:

- Rent offsets at UCSB-based incubators
- Product development
- Legal assistance for incorporation
- Fee offsets for use of UCSB recharge facilities

GEM does not take equity in any grant-funded ventures.

Table 6 presents a summary of GEM funding allocations for calendar year 2023. A case study of a team funded by a GEM grant is presented on the following page.

Table 6. Calendar Year 2023 GEM Funding Allocations

Program	Number of Teams/Projects	Amount Awarded
GEM Assistant Grants	4	\$20,000
UCSB New Venture Competition GEM Grants	5	\$14,000
UCSB Summer G2 Program GEM Grants	4	\$32,500
Total	13	\$66,500

CASE STUDY: Leeta

Leeta, a team comprising two Ph.D. students at UCSB, has developed a faster and more sustainable manufacturing process to close the supply and demand gap for lithium-ion battery materials. Leeta's business model will be focused on procuring raw materials from mining companies and refineries and converting the raw materials into high-quality cathode materials through a microwave heating process, yielding an estimated energy savings of 30 percent.

In 2023 Leeta won the grand prize at UCSB's 24th Annual New Venture Competition (NVC) Finals, earning \$4,000 from UCSB and \$8,000 in GEM grant funding.

UCSB also offers support for emerging businesses in the county via the California NanoSystems Institute (CNSI), an integrated research and discovery facility with locations at UCSB and UCLA, which aims to foster innovation in nanosystems research to address critical needs for California, including energy management, water purification, sustainability, quantum science and information, healthcare, and robotics.

CNSI offers various resources aimed at supporting Central Coast startups, including:

- A technology incubator with on-campus lab space available to lease for UCSB-connected local, technology-oriented startups.
- An innovation workshop offering experienced staff support in prototyping and testing inventions to UCSB researchers and employees from local companies.
- Access to contacts with angel and venture capital investors, accounting and law firms, and other startup-related service providers.
- Publication of a monthly newsletter for startups and budding entrepreneurs, covering events, news, and newly available resources.
- Access to interns for qualified startups through the CNSI-Propel program.⁸⁹

At CNSI's Innovation Workshop,

local employees can learn how to operate various tools for independent use or submit jobs for the workshop staff to fabricate. The workshop is open to research groups, Technology Management and Capstone teams, incubator companies, and external companies. Available tools include electronics assembly and testing, laser cutting, 3-D printing, mechanical assembly and testing, light metal and woodworking, painting, supplies (for sale), instrumentation for temperature and pressure measurement, and plumbing.

- Entrepreneurship skills training through the ZAP program, which introduces participants to Lean Startup Methodology, Customer Discovery techniques, and the Business Model Canvas, and the BOOM program, which builds on the results obtained in ZAP; following completion of both programs, participants may become eligible for federal grant funding from the National Science Foundation (NSF).
- Access to CNSI SEED-TECH grant funding, which helps UCSB faculty move university-owned research innovations closer to commercialization, public use and/or licensing.
- Entrepreneurship skills training for UCSB students via an engineering Capstone class and a New Venture Program and Competition.⁹⁰

⁸⁹ For companies that have been incorporated for less than five years and have not raised Series A funding, CNSI covers the full cost of placing an intern in the organization. For more established companies, CNSI offers support for first-generation UCSB and community college students from partner institutions to participate in internships. Typical internships are 20 hours per week for 10 weeks (with extensions possible depending on available funds).

⁹⁰ https://www.cnsi.ucsb.edu/

UCSB has played a critical role in launching startups in Santa Barbara County, particularly in the technology and medical device industries, as described in the following case study.

CASE STUDY: Active Life Scientific

Active Life Scientific was founded in 2007 by UCSB physics undergraduate student Alex Proctor based on a discovery by UCSB physics professor Dr. Paul Hansma. Proctor served as a research assistant in Dr. Hansma's lab and produced the first prototypes for the bone health measurement technology that would serve as the foundation for Active Life Scientific's products.

After winning two awards for these prototypes in UCSB's New Venture Competition, Proctor founded Active Life Scientific. The company has received seed funding from the National Institutes of Health (NIH) and has raised \$500,000 in seed funding from investors including Tech Coast Angels, a U.S. angel investor network and one of the leading sources of funding to early-stage companies in Southern California.

In 2021, Active Life Scientific obtained FDA clearance for clinical use of its OsteoProbe® medical device in the United States.

Appendix A: Study Area

Table 7. 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 B: Industry Clusters

The following industry clusters were identified in Santa Barbara County based on regional labor market trends:

- **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.
- **Defense, Aerospace, and Transportation Manufacturing (DATM)** consists of all industries that manufacture and design instruments, aircraft, space vehicles, and other engine components.
- Information and Communication Technologies (ICT) is the collection of industries that
 manufactures and distributes electrical equipment and services, including computers, audio and
 video equipment, semiconductors, telecommunications, data processing and hosting, etc.
- **Information & Communications** includes industries related to media production and media distribution, such as TV shows, motion pictures, books, newspapers, and radio broadcasting.
- **Biotechnology and Biomedical Devices** includes manufacturing, research, and suppliers related to biotechnology, agricultural chemicals, medical instruments, and pharmaceutical equipment intended to improve the quality of human life.
- **Finance, Banking, and Insurance** includes financial services industries, such as banks and credit unions, consumer lending, investment banking, securities trading, and insurance providers.
- Public Services and Infrastructure includes all industries related to public services, such as
 postal services and public infrastructure construction for roads, buses, and other transit
 systems. This also includes all industries related to grid infrastructure, electric power generation,
 and natural gas distribution pipelines.
- Building and Design includes all industries related to residential and commercial building
 construction, such as new single-family housing construction, residential remodelers, and
 heating and air conditioning equipment manufacturing.
- Professional and Business Services includes all professional services-related industries, such as
 payroll and accounting services, management consulting services, public relations agencies, and
 human resources management services.
- Real Estate includes industries such as mortgage loan brokers, real estate agents, property management services, and land appraisers.
- **Logistics** includes all shipping and freight transportation-related industries, such as truck, rail, and air transportation, wholesalers, and packing and crating services.
- Education and Knowledge Creation is comprised of all education-related industries, including
 colleges and universities, elementary and secondary schools, apprenticeship programs, and
 tutoring services.

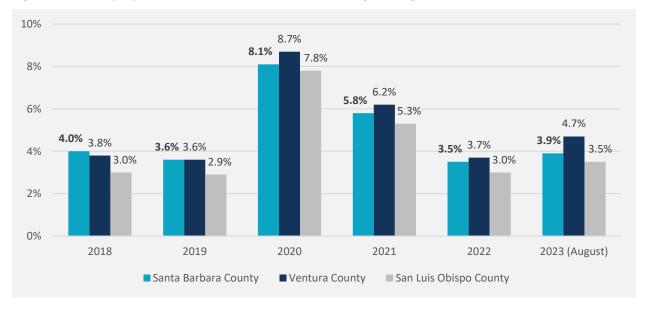
- Other Services includes industries such as consumer goods rental services, automotive repair services, appliance repair and maintenance services, and waste treatment.
- Other Manufacturing includes industries such as stone and ore mining, clothing manufacturers, fabric mills, and plastics product manufacturers.
- Agriculture & Food includes all industries related to crops, animals, and food and beverage
 production. This includes agricultural support services, bakeries and other food manufacturing,
 as well as breweries, wineries, and distilleries.
- **Retail** includes all industries involved in retail sales, such as grocery stores, department stores, florists, bakeries, pharmacies, and jewelers, among others.
- Tourism, Hospitality, and Recreation consists of all business sectors that support hospitality services and recreation, including museums, casinos, accommodation services, sightseeing transportation, campgrounds, amusement parks, sports, and rental equipment. This cluster also includes full-service restaurants and bars.

Appendix C: Supporting Figures

10% 5.4% 5% -0.7% -2.8% -5% -3.2% -10% 2019 2020 2021 2022 2018 2023 (August) Santa Barbara County Ventura County -San Luis Obispo County California

Figure 28. Employment Change for Santa Barbara, Neighboring Counties, and the State (2018 – 2023)⁹¹

Figure 29. Unemployment Rate for Santa Barbara and Neighboring Counties (2018 - 2023)92



⁹¹ California EDD. Local Area Unemployment Statistics (2018 – 2023).

⁹² California EDD. Local Area Unemployment Statistics (2018 – 2023).

Figure 30. Race & Ethnicity in Santa Barbara County (2022)⁹³

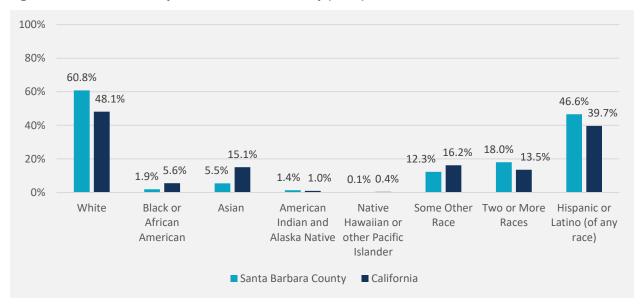
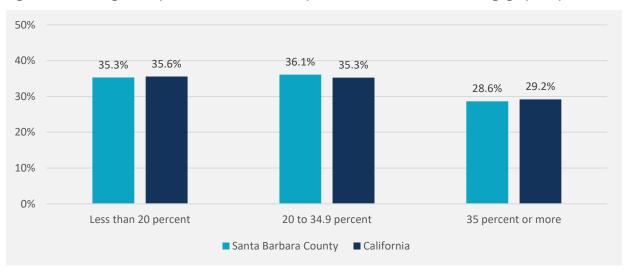


Figure 31. Housing Costs (% of Household Income) for Homeowners with a Mortgage (2022)⁹⁴



⁹³ United States Census Bureau. American Community Survey 5-year Estimates (2022).

⁹⁴ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).

Figure 32. Typical Means of Transportation to Work by Sub-Region (2022)95

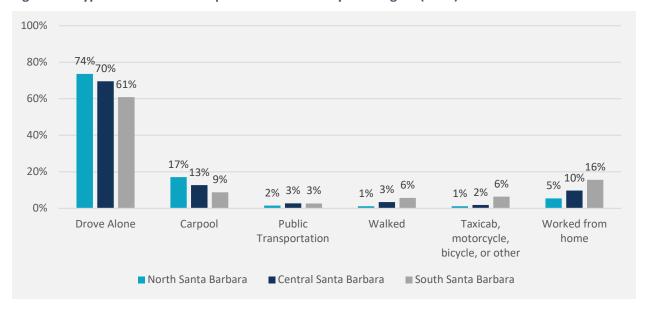
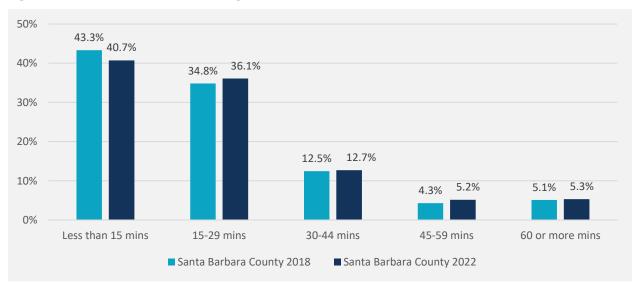


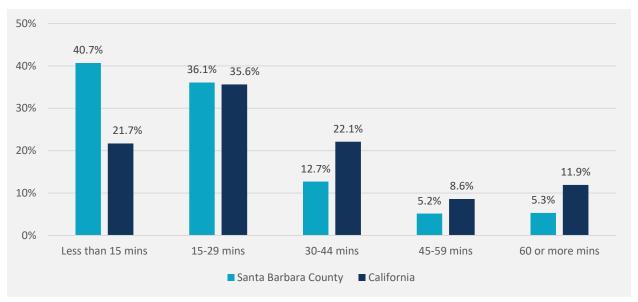
Figure 33. Travel Time to Work Among Non-Remote Workers (2018 – 2022)⁹⁶



⁹⁵ United States Census Bureau. American Community Survey 5-year Estimates (2022).

⁹⁶ United States Census Bureau. American Community Survey 5-year Estimates (2018 – 2022).





⁹⁷ United States Census Bureau. American Community Survey 5-year Estimates (2022).

Appendix D: SBCC Pathways Analysis

Table 8. SBCC Pathways to Higher-Earning Jobs

Program Name	Industry Cluster	Program Type	Educational Outcome	Median Earnings
Engineering	Building and Design	Engineering	Associates	\$61,961
Construction Technology	Building and Design	Construction Services	Associates	\$67,940
Drafting/CAD	Building and Design	Construction Services	Associates	\$58,159
Registered Nursing	Healthcare	Medical Field	Associates	\$67,366
Licensed Vocational Nurse	Healthcare	Medical Field	Associates/Certificate	\$49,950
IT Support Technician	Information, Communications, & Technology (ICT)	Computer Sciences	Certificate	\$40,557
Computer Information Systems	Information, Communications, & Technology (ICT)	Computer Sciences	Associates	\$51,363
Cloud Computing Architect	Information, Communications, & Technology (ICT)	Computer Sciences	Certificate	\$55,990.00
Computer Science	Information, Communications, & Technology (ICT)	Computer Sciences	Associates	\$52,758
Automotive Service and Technology	Other Services	Automotive Services	Certificate	\$46,420