2023

San Luis Obispo County State of the Workforce Report

PRODUCED FOR THE WORKFORCE DEVELOPMENT BOARD OF SAN LUIS OBISPO COUNTY

JANUARY 2024

[bw] RESEARCH PARTNERSHIP

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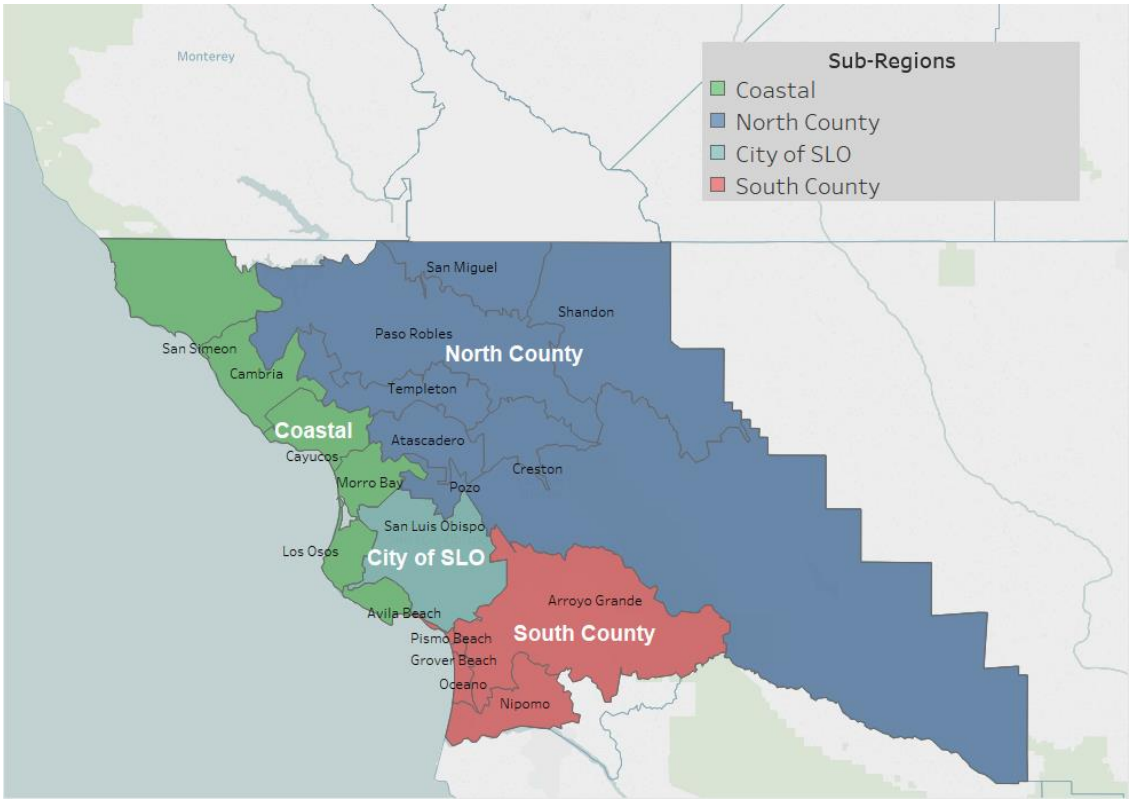
San Luis Obispo County



For this report, San Luis Obispo County is divided into four sub-regions:

Coastal	North	City of San Luis Obispo	South
Avilla Beach, Cambria, Cauycos, Los Osos, Morro Bay, San Simeon,	Atascadero, Creston, San Miguel, Paso Robles, Pozo, Shandon, Templeton	San Luis Obispo	Arroyo Grande, Grover Beach, Nipomo, Oceano, Pismo Beach City

For zip code breakdowns of the sub-regions, please see **Appendix A: Regional Definition**.

Executive Summary

Introduction

The Workforce Development Board of San Luis Obispo County (WDBSLO) engaged BW Research to develop the 2023 State of the Workforce Economic Report. This report delves into various aspects of the county's workforce and economic landscape, trends, changes in industry and job composition, commute and migration patterns, and other factors that influence the daily lives of workers. Additionally, this report offers valuable insights into the region's infrastructure and housing investments, which will have a significant impact on the county's future workforce requirements. The information presented herein serves as a valuable resource for various stakeholders in the county to develop strategies that will effectively prepare the region for the evolving world of work.

Key Findings

Economic and Workforce Profile

San Luis Obispo County's labor market recovered from the COVID-19 pandemic more quickly than the rest of the state. While the region experienced more significant job losses than the state due to the pandemic, jobs in SLO County grew faster than jobs in the state from 2020 to 2022 (10.4 percent versus 9.5 percent). (Figure 1 and Table 1) SLO County's unemployment rate reached pre-pandemic levels, and remained lower than the statewide average, at 3.5 percent (versus 4.2 percent for the state). SLO County's unemployment rate has consistently been lower than the statewide average in every year from 2018 to 2022. (Figure 2)

However, San Luis Obispo County faces a job quality issue, as the county has a higher concentration of low-wage jobs (56.7 percent) than the rest of the state (53.2 percent). (Figure 4) Between 2018 and 2022, employment has grown in the low-wage Tourism, Hospitality, and Recreation industry (+3.9 percent) – which dominates local employment, accounting for nearly one in five county jobs – and the Agriculture and Food industry (+20.4 percent), where countywide employment is 182 percent more concentrated than the state average.

The concentration of SLO County's workers in low-wage jobs is important because job quality is a valuable indicator of long-term economic stability. High-quality, high-wage jobs have a large employment multiplier and typically provide greater economic resilience for local households. A high concentration of low-wage jobs thus poses a threat to long-term regional growth and the ability of households to live sustainably in the region.

San Luis Obispo County's job quality has declined. Not only is the county's share of high-paying, Tier 1 jobs (19.7 percent) lower than the statewide average (21.6 percent), but the county's share of Tier 1 jobs has declined between 2018 and 2022, in contrast to the rest of the state, where employment in Tier 1 jobs has risen. Tier 1 losses were primarily driven by a 31.7 percent decline in employment in the Information, Communications and Technology (ICT) industry, where roughly 700 jobs in the Custom Computer Programming Services industry were shed between 2018 and 2022. (Figure 5)

SLO County has experienced difficulties in recruiting and maintaining high-level local talent. While SLO County's educational attainment surpasses the statewide average (Figure 12), the county is a net exporter of talent – meaning that more individuals residing in the county commute outside the region for work than the number of individuals living and working within the region – primarily for higher-paying jobs in the Management, Business, Science, and Arts sector. Given the county's disproportionate share of older individuals (65 years and over) (Figure

10) and its growing cohort of Millennials (Figure 11), it is imperative that the county pursue strategies to attract and retain its young local talent to support the continued growth and development of its workforce and growing and emerging businesses.

Housing burdens for county residents remain significant. While homeowners represent a larger share of the county population than the statewide average (62.5 percent versus 55.5 percent), a larger proportion of homeowners with mortgages in the county spend 35 percent or more of their income on housing than the statewide average (31 percent versus 29 percent). (Figure 13 and Figure 15) Cost burdens for homeowners with mortgages within California are already high relative to the rest of the United States, where the national median cost ratio for homeowners with a mortgage is only 21 percent. More than one-third (37 percent) of renters in the county also allocate more than 35 percent of their income to housing. (Figure 14)

Elevated regional housing costs and the increased availability of remote work options provide some high-income earners a greater degree of freedom in choosing where they will work and live. Thus, it is important that the county consider investing in its stock of affordable housing to attract and retain those workers that are largely working remotely.

Infrastructure Workforce

Demand for the county's infrastructure workforce is expected to increase in the coming years, spurred by national and regional spending on capital improvement projects. On a national level, the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the US CHIPS and Science Act will inject billions of dollars into the US economy, focusing on infrastructure development, bolstering domestic manufacturing and supply chains, and driving research and development. At the local level, San Luis Obispo County's Five-Year Capital Improvement Plan will contribute an estimated $290 million to the local economy across various program areas, including roads, transportation structures, and water and wastewater systems, over the next few years. Larger projects are also forthcoming, such as the Central Coast Blue and Offshore Wind projects, which are expected to bring hundreds of millions of dollars in investment into the region and support hundreds of jobs.

Crucial sectors of the county's infrastructure workforce, particularly energy and water, have experienced job declines in recent years. Since 2018, the county's energy workforce has declined by 22.4 percent (Figure 22), while its water workforce has declined by 7.7 percent since 2019 (Figure 23). However, residential construction jobs have grown by 11.5 percent between 2018 and 2021 (Figure 24) and transportation infrastructure employment has remained relatively stable (Figure 25). Given the significant scale and benefits of the planned infrastructure investments, supporting SLO County's infrastructure workforce will play a vital role in SLO County's future.

Conclusions & Recommendations

This section discusses how policy may address some of the challenges and opportunities identified in the preceding section to ensure that SLO County's workforce will be able to thrive and support the regional economy.

1. **San Luis Obispo County faces challenges with respect to its job quality.** The county's job quality has fallen, with a declining proportion of high-wage jobs; recent losses in this category have been primarily driven by jobs shed in the Information and Communication Technology (ICT) industry. Furthermore, the county's jobs are concentrated in low-wage industries like Tourism, Hospitality, and Recreation, which accounts for one in five local jobs.

2. **Developing and expanding the entrepreneurial ecosystem is crucial to supporting new businesses within the county, particularly in high-wage sectors.** The county is a net exporter of talent, particularly with respect to high-wage jobs. Since the loss of high-wage jobs significantly affects the local economy, working with regional partners to devise industry cluster-specific strategies to birth new businesses, and expand existing businesses, is critical. Potential strategies can include targeted policy actions such as connecting potential investors to local venture capital funding sources, communicating funding opportunities with federal and statewide investment activities, and providing potential investors with education and training to develop entrepreneurship skills.

3. **Attracting and retaining local talent is crucial to supporting the county's economic health.** The county has a larger share of older residents (65 years and over) than the statewide average, and a growing cohort of Millennials. Fostering connections between local higher education institutions and local businesses can help the county take advantage of the growing pool of younger workers, and developing local employment pathways for in-demand occupations that can support improvements in job quality. Upskilling programs can also support retention of local talent as workers progress to more lucrative jobs along local employment pathways.

4. **Collaboration with local educational institutions and labor unions will support efforts to fill gaps in pathways to higher-paying jobs.** A needs assessment should be performed to identify gaps between skills in demand by employers in high-paying industries and skills available in the local labor market. Evaluating the current inventory of local training programs that fill these skills gaps allows the county to determine what types of courses are needed to support transitions to higher-paying jobs. The county should work with local educational institutions such as Cuesta College and Cal Poly, as well as local labor unions, to develop training courses and/or programs to help fill these gaps.

5. **High housing costs constrain local labor market growth.** Like many coastal California communities, SLO County residents face high housing costs compared to the national average, with approximately one-third of county residents spending 35 percent or more of their income on housing. A lack of affordable housing, in conjunction with a limited supply of high-wage jobs, may encourage potential workers to settle elsewhere. Thus, increasing the supply of affordable housing—while also ensuring roadways and public transit can handle the number of people living and working in the county—is imperative for sustaining the county's local workforce.

6. **The needs of highly paid, remote workers in the county should be considered to ensure that they are being adequately supported.** While many remote jobs that came about in the pandemic have partially or fully returned to in-person work, other jobs have become fully remote. Assessing how such jobs will be tracked and measured helps the county quantify the potential economic impacts associated with remote work. This information, in turn, will inform county investments in infrastructure needed to support remote work, such as investments in the local airport and telecommunications infrastructure. Ensuring that the needs of highly paid remote workers are met promotes retention of this segment of the workforce, as remote workers may exit the region absent sufficient support, resulting in a significant loss of spending to the local economy.

7. **Upcoming infrastructure investments will provide opportunities for local economic growth.** Hundreds of millions of dollars in infrastructure and clean energy investment are expected to flow into the county, providing access to hundreds of well-paying jobs. For more information on the employment opportunities associated with the growing infrastructure investments, see the current infrastructure workforce, starting on page 36 of this report.

8. **Local hire policies[1] should be deployed to help ensure that the county's residents are able to capitalize on the opportunities presented by the growing local infrastructure investments.** Upcoming infrastructure investments will be sizable and will generate new, well-paying jobs in construction and design. These jobs will generate compounding effects as these new workers spend more at local businesses, creating a multiplier effect. Focusing on hiring local workers will ensure that the infrastructure dollars flowing into the county are maximized, multiplied, and circulated within the local economy and benefiting all county residents.[2] For more information on local hire policies in San Luis Obispo, please see the Local Hiring Initiatives in San Luis Obispo County report concurrently prepared by BW Research for the WDBSLO.

The economic impacts of project labor agreements incorporating local hire policies are significant because local wages in the construction industry are relatively high. The median wage of local construction jobs ($28.53/hour) is 38 percent higher than the county's living wage of $20.67 for a single adult with no children.

[1] Local hire policies require contractors and developers benefiting from the use of public funds to use the labor of residents or businesses within a particular geographic region to perform work or provide services.

[2] According to the Local Hiring Initiatives in San Luis Obispo County study concurrently prepared by BW Research, every 100 additional construction jobs in SLO County ultimately generates $11.4 million in labor income and $15.2 million in value added, as well as an additional $525,000 in local taxes, $903,000 in state taxes, and more than $2.2 million in federal taxes.

Economic Profile

This section provides an overview of key economic indicators, including total employment, unemployment rate, labor force participation rate, job quality by tiers, and industry clusters. An analysis of industry clusters sheds light on SLO County's competitive advantage in specific industries, categorized by those with high, middle, and low average wages. Additionally, indicators such as job quality provide a more nuanced perspective on the economic well-being of county residents, which other aggregated measures would not necessarily provide.

Overall Employment Metrics

San Luis Obispo County has exhibited a faster employment recovery than California from 2020 to 2022. As shown in Figure 1, the county witnessed a significant decline in jobs due to the COVID-19 pandemic in 2020. However, subsequently, the county's labor market has recovered more quickly than the state, with labor market growth of 10.4 percent between 2020 and 2022, as compared to 9.5 percent growth for California (Table 1). Compared to 2018 levels, however, the county's labor market has grown by only 2.0 percent, while the state's labor market has grown by 3.3 percent (Figure 1).

Figure 1. Overall Employment Change (2018-2022)[3]

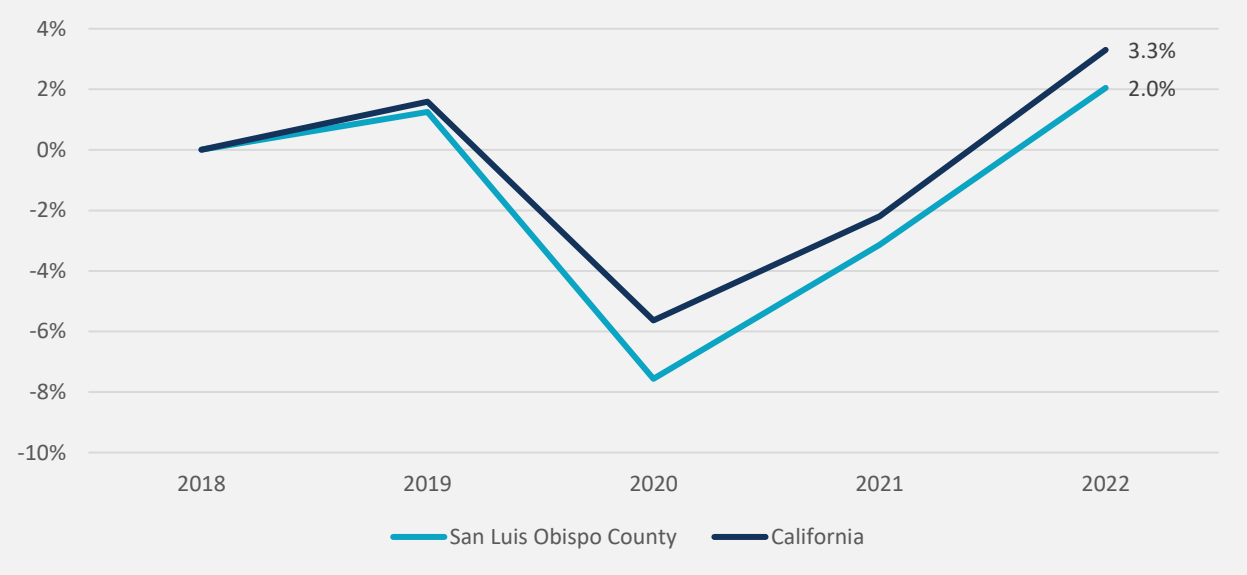


Table 1. Employment Change (2020-2022)[4]

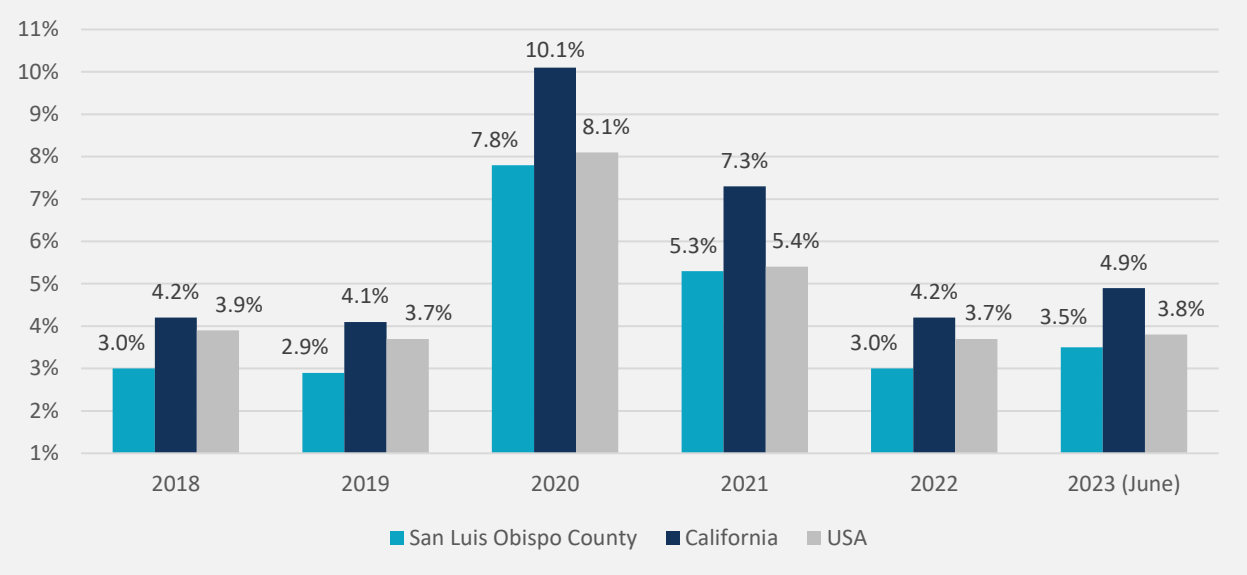
	Percent Change (2020-2022)
San Luis Obispo County	+10.4%
California	+9.5%

[3] California EDD. Quarterly Census of Employment and Wages. 2023.
[4] California EDD. Quarterly Census of Employment and Wages. 2023.

Unemployment Rate

The unemployment rate in San Luis Obispo County has continued to fall, reaching pre-pandemic levels in 2022. SLO County's employment rate in 2022 was roughly equivalent to its employment rate in 2018, at 3.0 percent. 2023 saw a moderate increase in unemployment in all three regions, with unemployment in SLO County increasing by 0.5 percentage points. The county's unemployment rate consistently fell below the statewide average and the national average in every year from 2018 to 2023 (Figure 2).

Figure 2. Unemployment Rate (2018-2023)[5]



Labor Force Participation Rate

The county's labor force participation rate (LFPR)[6] dipped slightly in 2021, consistent with historical trends of economic recovery following shocks like the COVID-19 pandemic (Figure 3).[7] [8]

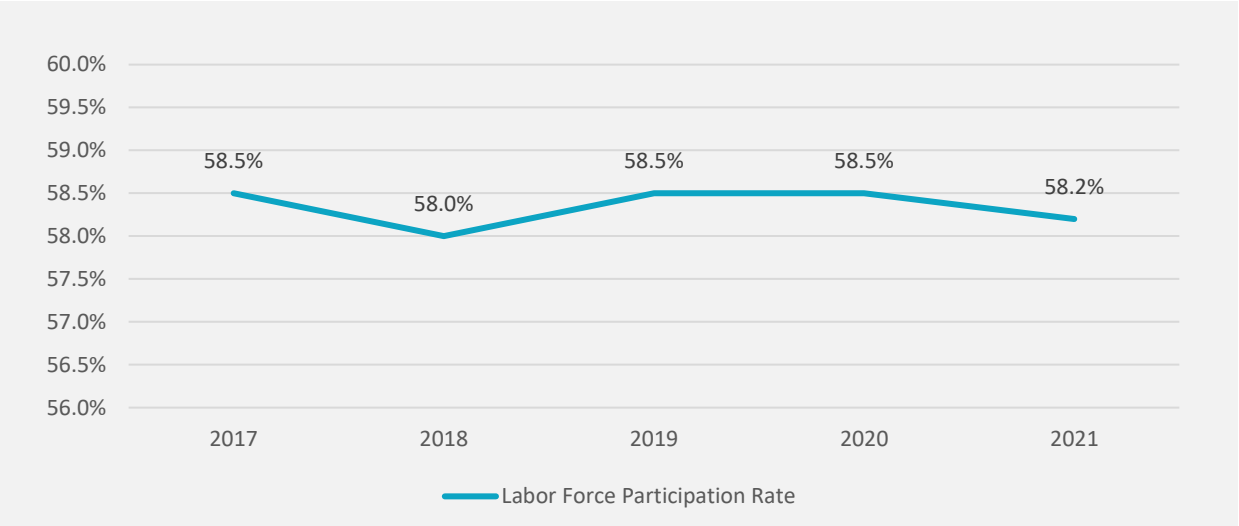
[5] California EDD. Local Area Unemployment Statistics (2018-2023).

[6] The labor force participation rate (LFPR) measures the percentage of citizens who are in the labor force. Citizens are classified as members of the labor force if they are employed or actively seeking employment.

[7] Research from the Federal Reserve shows the LFPR declines after a negative shock for about four years and takes about eight years to fully recover. See: Tomaz Cajner, John Coglianese, and Joshua Montes. "The Long-Lived Cyclicality of the Labor Force Participation Rate." July 2021. https://www.federalreserve.gov/econres/feds/the-long-lived-cyclicality-of-the-labor-force-participation-rate.htm

[8] Research from the Federal Reserve also suggests that generous income transfers and unemployment insurance programs implemented during the pandemic contributed to aggregate LFPR declines. See: Felipe Schwartzman. "COVID Transfers Dampening Employment Growth, but Not Necessarily a Bad Thing." November 2021. https://www.richmondfed.org/publications/research/economic_brief/2021/eb_21-39

Figure 3. Labor Force Participation Rate (2017-2021)[9]



Job Quality

Job quality is a crucial metric for assessing the economic vitality of a region. For example, a high concentration of low-paying and low-skilled jobs in a region can indicate potential challenges for residents and the overall economy.

Table 2. Job Tier Description

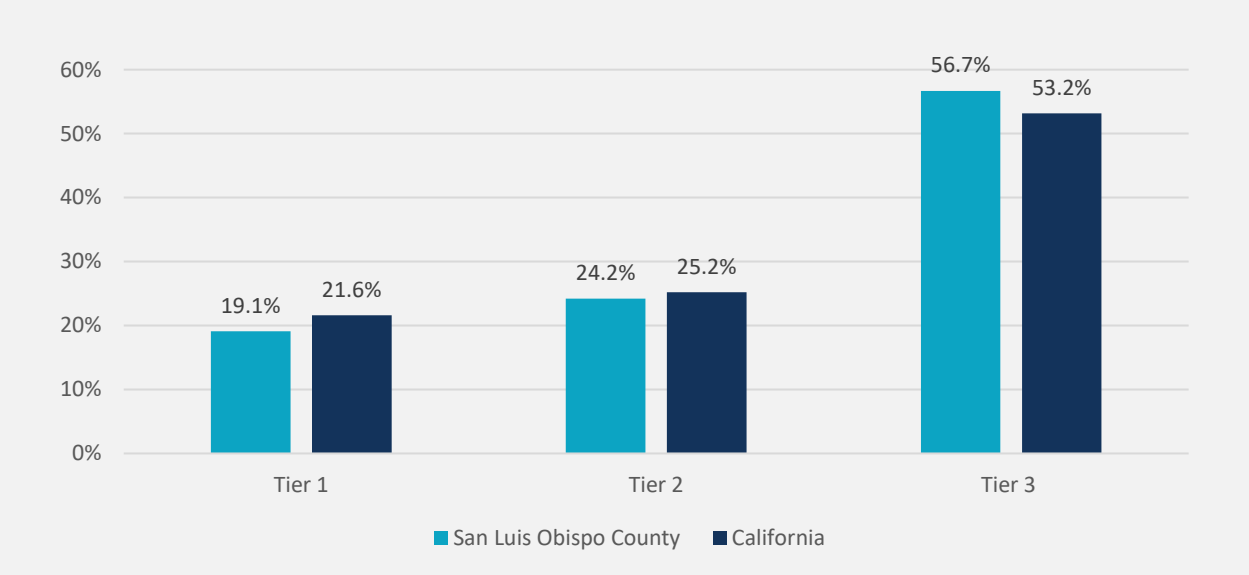
Tier 1 Occupations	Tier 2 Occupations	Tier 3 Occupations
Tier 1 occupations typically represent the highest-paying and highest-skilled occupations in the economy. These occupations encompass roles such as managerial positions (e.g., Sales Managers), professional positions (e.g., Lawyers), and highly skilled technology occupations, such as engineers, scientists, and computer programmers.	Tier 2 occupations typically fall within the middle-wage and middle-skill range. This category comprises roles such office and administrative positions (e.g., Accounting Clerks and Secretaries), manufacturing operations, and production positions (e.g., Electricians, Machinists).	Tier 3 occupations typically represent the lowest-paying and lowest-skilled positions, often constituting the largest share of employment in the County. These occupations encompass roles such as food service and retail positions, building and grounds cleaning positions, and personal care positions.

[9] United States Census Bureau. American Community Survey 5-year Estimates (2017-2021).

As shown in Figure 4, SLO County has a higher proportion of lower-skill and lower-wage Tier 3 occupations (56.7 percent), and a lower proportion of higher-wage and higher-skilled Tier 1 occupations (19.1 percent) than the statewide average. The county's share of Tier 2 occupations is comparable to the statewide average.

SLO County has a lower job quality than the rest of statewide average, with a higher concentration of low-skill, low-earning Tier 3 jobs.

Figure 4. Job Quality by Tiers (2022)[10]



The concentration of SLO County's workers in Tier 3 jobs is important because job quality is one of the most important indicators for a region's long-term economic stability. High-quality, high-wage jobs have a large employment multiplier and provide a higher quality of life. Concentration of local jobs in Tier 3 thus poses a threat to long-term regional growth and may limit advancement opportunities for local workers.

Industry Cluster Employment

Industry clusters are a common unit of analysis utilized by economists and economic developers to identify the drivers of development in a region. Clusters refer to closely related industries that collaborate within supply chains or generate value through interconnectedness, such as partnerships for enhanced visibility or business opportunities.

Industry cluster analyses allow SLO County to engage with employers that are central to countywide economic growth and create valuable workforce development programs in high-growth clusters. In addition, cluster analyses provide valuable information to current workers and jobseekers looking to develop new skills and career pathways, focusing on areas of growth within the region.

[10] JobsEQ Q4 2022. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2022).

The subsequent sections outline the 19 significant industry clusters in SLO County, categorized by earnings (high, mid, and low). High-wage clusters offer an average annual wage of more than $75,000, mid-wage clusters offer wages between $59,000 and $74,999, and low-wage industry clusters offer an average annual wage less than $59,000. Industry clusters are also displayed to graphically illustrate location quotients (LQs).

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 instance, 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.

As shown in the following figures, major employers in SLO County include the Tourism, Hospitality, and Recreation Industry, which accounts for nearly one in five jobs in the county (19.4 percent), followed by the Healthcare industry (15.3 percent), the Retail industry (13.0 percent), and the Education and Knowledge Creation industry (10.8 percent). Collectively, these four industries accounted for nearly 60 percent of jobs in SLO County (58.5 percent).

The Tourism, Hospitality, and Recreation industry was the largest employer in SLO County in 2022, accounting for nearly one in five jobs.

Highest Earning Clusters

The county's highest-earning industry clusters exhibited significant declines in employment. The Information, Communications and Technology (ICT) industry[11] experienced a severe drop in employment of 31.7 percent, shedding roughly 700 jobs in the Computer Programming Services subindustry. The Biotech and Biomedical Devices industry also exhibited a large drop in employment (-20.0 percent, or -214 jobs) driven by a loss of 63 jobs (-32.6 percent) in the Medical Laboratories subindustry. However, these industry clusters are so small that even the loss of one employer in the region can significantly affect a cluster's aggregate performance.

The Information and Communications industry[12] exhibited a smaller decline of approximately -10 percent, driven by a 52.6 percent drop (-124 jobs) in the Periodical Publishers subindustry, consistent with nationwide trends. The Finance, Banking, and Insurance industry exhibited a 5.2 percent decline (-125 jobs), primarily due to a 14 percent drop (-106 jobs) in the Commercial Banking subindustry.

The Public Services and Infrastructure industry experienced a 2.3 percent drop (-118 jobs) primarily driven by the loss of 598 jobs in the Hydroelectric Power Generation subindustry. However, this loss was partially offset by a gain of 548 jobs in the Nuclear Electric Power Generation subindustry.

[11] The ICT industry includes subindustries related to electronics and electronic component manufacturing, telecommunications companies, and computer-related services.
[12] The Information and Communication industry includes subindustries related to media (TV, books, music, motion pictures).

Figure 5. Highest Earning Industry Clusters (2018-2022)[13] [14]

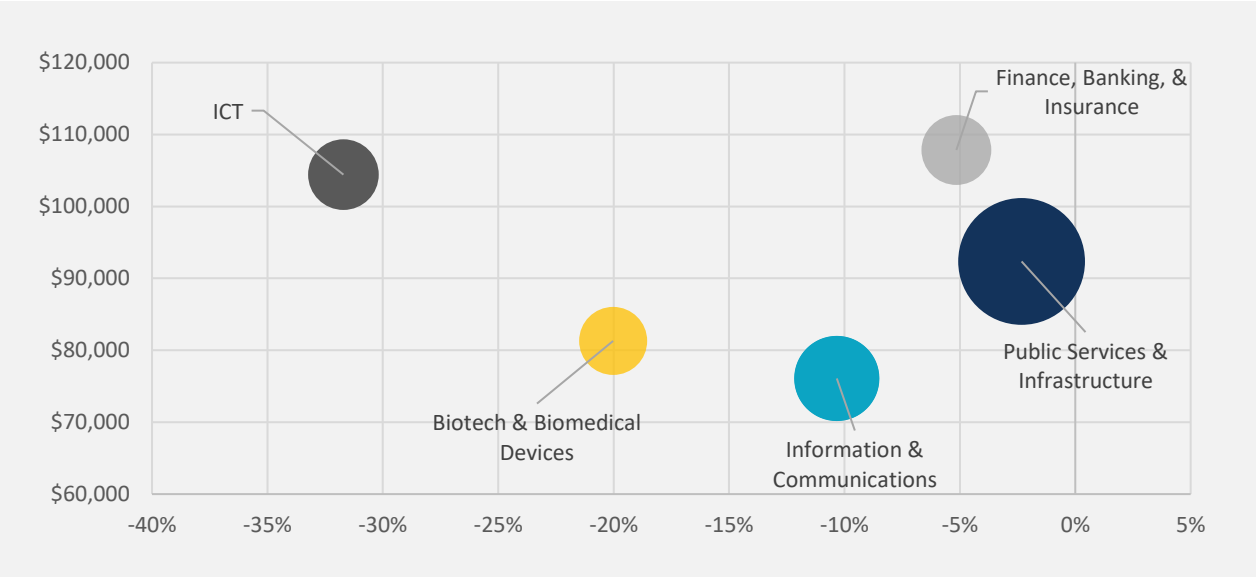


Table 3: Industry Cluster Overview – Highest Earning Industry Clusters (2018-2022)

Industry Cluster	Industry Cluster Employment (2022)	Employment Change since 2018 (%)	Avg. Annual Wages	LQ (2022)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2022)	Employment Change since 2018 (%)
Finance, Banking, & Insurance (FBI)	2,306	-5.2%	$107,848	0.45	Commercial Banking	651	-14.0%
Information & Communication Technologies (ICT)	1,880	-31.7%	$104,425	0.46	Computer Programming Services	883	-44.8%
Public Services & Infrastructure	4,968	-2.3%	$92,354	1.49	Hydroelectric Power Generation	0	-100%
Biotechnology & Biomedical Devices (B&BD)	855	-20.0%	$81,301	0.43	Medical Laboratories	131	-32.6%
Information & Communications	1,027	-10.3%	$76,081	0.66	Periodical Publishers	112	-52.6%

Public Services and Infrastructure jobs are more prevalent in SLO County compared to the rest of the nation. These types of jobs are 49 percent more concentrated in SLO County than in the United States overall, representing a location quotient of 1.49. All other high-earning clusters in SLO County have job concentrations below the national average.

[13] JobsEQ Q4 2022. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2022).
[14] Bubble sizes are proportional to the Location Quotient value for each industry cluster.

Mid-Earning Clusters

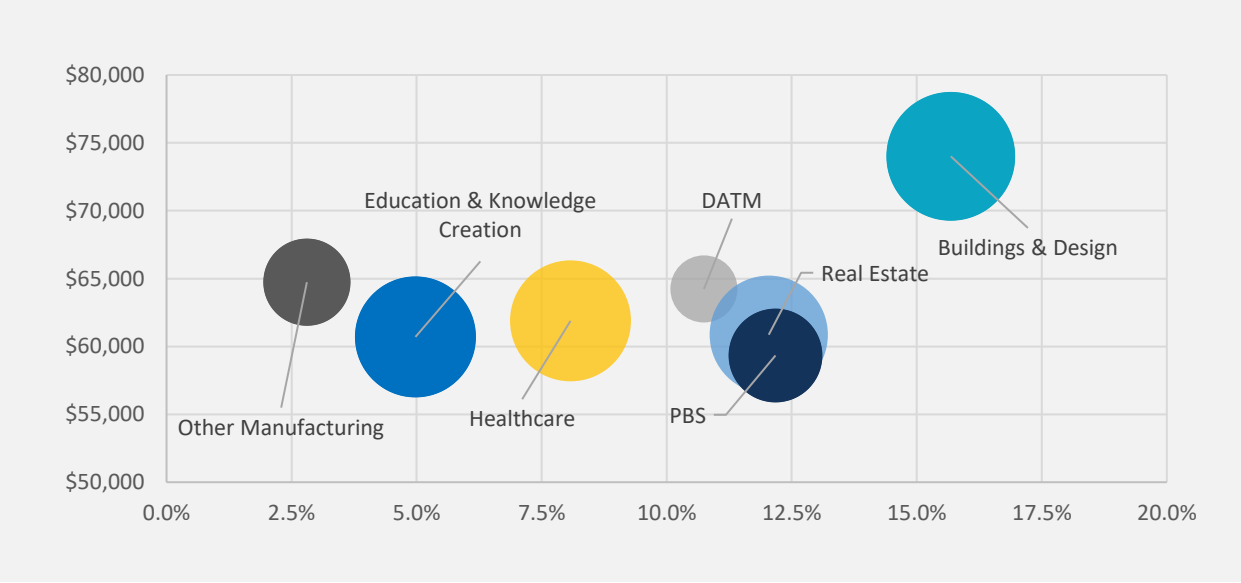
Employment in all mid-earning industry clusters in San Luis Obispo County grew between 2018 and 2022. The Buildings and Design industry saw the highest growth rate of all mid-earning clusters, at 15.7 percent, driven by a 27.0 percent employment increase (+243 jobs) in the Engineering Services subindustry.

The Healthcare Industry and the Education & Knowledge Creation Industry were the largest employers within the mid-tier earnings segment.

The Professional and Business Services (PBS) industry experienced robust employment growth of 12.2 percent, driven by 19.3 percent growth (+219 jobs) in the Landscaping Services subindustry, and jobs in the Real Estate industry grew by 12.0 percent, driven by 13.0 percent growth (+79 jobs) in the Offices of Real Estate Agents and Brokers subindustry. Defense, Aerospace, and Transportation Manufacturing (DATM) industry employment grew by 10.7 percent, driven by the addition of 93 jobs in the Aircraft Engine and Engine Parts Manufacturing subindustry.

Healthcare industry employment grew by 8.1 percent, driven by the addition of 314 jobs in the Outpatient Care Centers subindustry. The Education & Knowledge Creation industry also exhibited a 5.0 percent increase in employment, fueled by the addition of 702 jobs in the Educational Support Services subindustry, and the Other Manufacturing industry exhibited a 2.8 percent increase in employment, fueled by the addition of 164 jobs in the Additive Manufacturing (3D Printing) subindustry and 133 jobs in the Semiconductor Machinery Manufacturing subindustry.

Figure 6. Mid-Earning Industry Clusters (2018-2022)[15] [16]



[15] JobsEQ Q4 2022. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2022).
[16] Bubble sizes are proportional to the Location Quotient value for each industry cluster.

Table 4: Industry Cluster Overview – Middle Earning Industry Clusters (2018-2022)

Industry Cluster	Industry Cluster Employment (2022)	Employment Change since 2018 (%)	Avg. Annual Wages	LQ (2022)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2022)	Employment Change since 2018 (%)
Building & Design	4,881	15.7%	$74,007	1.11	Engineering Services	1145	27.0%
Other Manufacturing	2,370	2.8%	$64,735	0.51	Additive Manufacturing	191	598.9%
Defense, Aerospace & Transportation Manufacturing (DATM)	593	10.7%	$64,237	0.31	Aircraft Engine & Engine Parts Manufacturing	94	9300.0%
Healthcare	17,257	8.1%	$61,887	0.99	Outpatient Care Centers	326	2684.4%
Real Estate	2,027	12.0%	$60,864	0.95	Offices of Real Estate Agents & Brokers	688	13.0%
Education & Knowledge Creation	12,359	5.0%	$60,704	0.98	Educational Support Services	746	1603.0%
Professional & Business Services (PBS)	8,676	12.2%	$59,334	0.59	Landscaping Services	1356	19.3%

Among the mid-earning clusters, Building and Design is the most highly concentrated in San Luis Obispo County (10 percent more concentrated in SLO, or 1.10 times) than in the United States.

Lowest Earning Clusters

Most of the five lowest-earning industry clusters in San Luis Obispo County—Other services (-28.0 percent), Logistics (-11.0 percent), and Retail (-4.2 percent)—experienced negative growth between 2018 and 2022, fueled by losses in the Grantmaking Foundations (-98.1 percent, -1,714 jobs), Used Household and Office Goods Moving (-31.9 percent, -102 jobs), and Clothing and Clothing Accessories Retailers (-29.9 percent, -382 jobs) subindustries, respectively (Figure 7). However, these losses were offset by gains in other low-earning industry clusters.

Jobs in the Tourism, Hospitality, and Recreation industry – the largest employer in the county – grew by 3.9 percent, fueled by gains in the Snack and Nonalcoholic Beverage Bars subindustry (37.9 percent, +385 jobs). Employment in the Agriculture and Food industry exhibited an even higher rate of growth (20.4 percent), fueled by a 26.4 percent increase in jobs in the Wineries subindustry (+612 jobs).

Employment in the Agriculture and Food industry cluster is 182 percent more concentrated in San Luis Obispo County, or 2.82 times the national average, as SLO County's temperate climate makes it well-suited to produce various specialty crops, such as wine grapes and strawberries.

Figure 7. Lowest-Earning Industry Clusters (2018-2022)[17] [18]

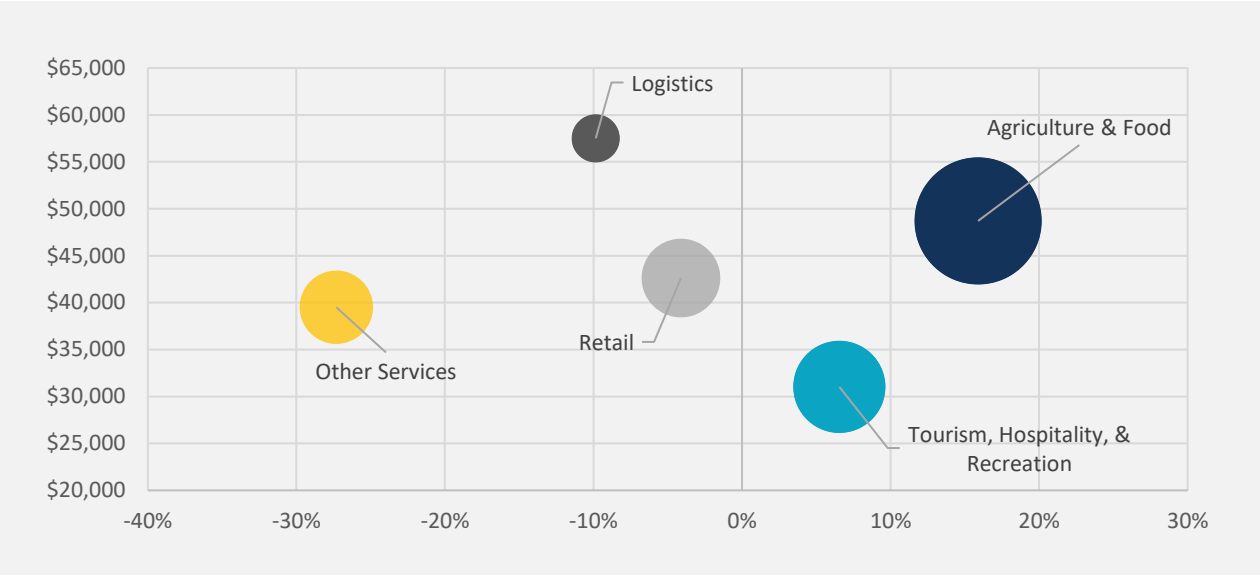


Table 5: Industry Cluster Overview – Lowest Earning Industry Clusters (2018-2022)

Industry Cluster	Industry Cluster Employment (2022)	Employment Change since 2018 (%)	Avg. Annual Wages	LQ (2022)	Main Subindustry Driving Growth/Decline	Subindustry Employment (2022)	Employment Change since 2018 (%)
Logistics	2,892	-9.90%	$57,498	0.4	Used Household & Office Goods Moving	217	-31.9%
Agriculture & Food	9,123	15.90%	$48,706	2.82	Wineries	2937	26.4%
Retail	14,828	-4.10%	$42,620	1.09	Clothing & Clothing Accessories Retailers	892	-29.9%
Other Services	5,864	-27.30%	$39,509	0.95	Grantmaking Foundations	34	-98.1%
Tourism, Hospitality, & Recreation	22,158	6.60%	$31,028	1.48	Snack & Nonalcoholic Beverage Bars	1400	37.9%

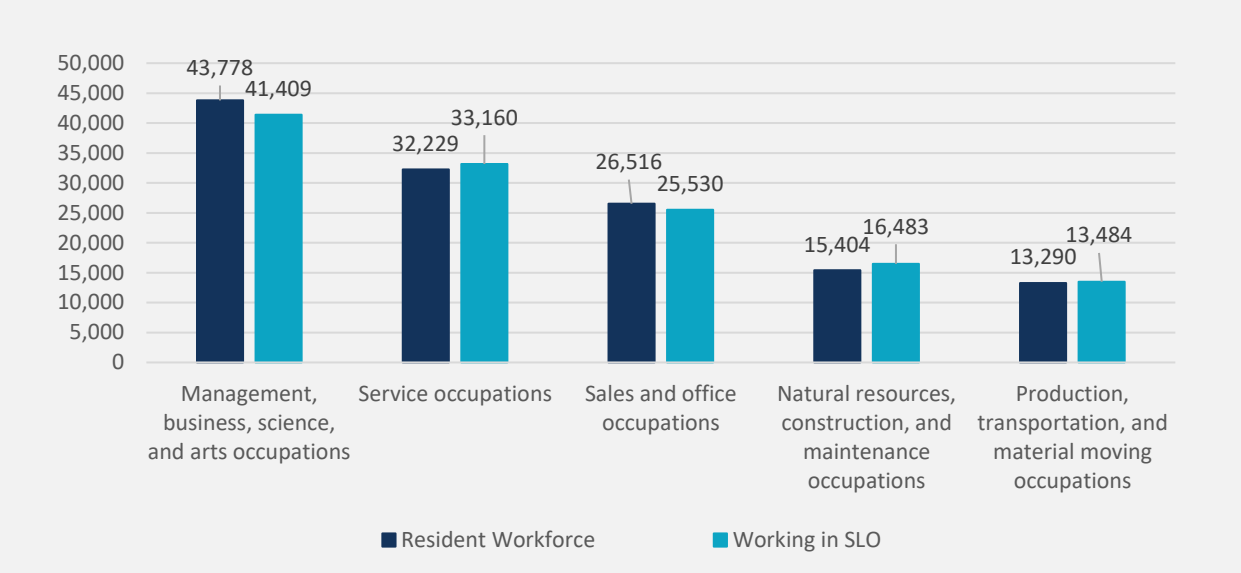
Working Residents & Jobs in the Region

This section examines the flow of workers in and out of SLO County. Figure 8 illustrates the "resident workforce," which represents the total number of workers in each occupational category *residing* in the county. The 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.

[17] JobsEQ Q4 2022. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2022).
[18] Bubble sizes are proportional to the Location Quotient value for each industry cluster.

Overall, the county is a net exporter of talent, particularly for Management, Business, Science, and Arts occupations, as well as Sales and Office occupations. Management, Business, Science, and Arts occupations have the highest number of exported jobs, with nearly 2,400 more workers in these roles residing in the county than there are jobs available for these fields. This means that there are slightly more individuals residing in the county who commute outside the region for work, compared to those who both live and work within the region.[19]

Figure 8. Working Residents and Jobs in San Luis Obispo County (2022)[20]



While some remote jobs have partially or fully returned to in-person work after the pandemic, others are likely to become fully remote. Assessing how such jobs will be tracked and measured will help the county measure the potential economic impacts associated with remote work. This information, in turn, will inform county investments in infrastructure needed to support remote work, such as investments in the local airport and investments in new fiber optic cables or upgrades to existing digital infrastructure to improve broadband access. Ensuring that the needs of highly paid remote workers are met will promote retention of this segment of the workforce, as remote workers may exit the region absent sufficient support, resulting in a significant loss of spending to the local economy.

Career Pathways for Selected Industry Clusters

Given SLO County's concentration of jobs in low-earning industry clusters, it is important to identify pathways to better-paying jobs for county residents. Thus, this section provides information on career pathways for selected industry clusters in SLO County.

Pathways in the Tourism, Hospitality and Recreation Industry

San Luis Obispo County is known for its beauty and its quality of life, and its landscape provides a solid foundation to the local Tourism, Hospitality, and Recreation industry. Although an entry-level job in the Tourism, Hospitality,

[19] It is important to note that individuals working from home for a business located outside of SLO County are still counted as individuals working outside the county.
[20] JobsEQ Q4 2022. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2022).

and Recreation industry may command lower wages than other industries, it can serve as a starting point to transition to a higher-paying career pathway within the industry (Table 6) or in a different industry thanks to the highly transferrable skills learned in the field; or, it can serve as a springboard to entrepreneurship in a related industry.

Table 6 illustrates a potential career pathway within the Tourism, Hospitality and Recreation industry. As shown, an individual who achieves entry-level employment in the industry as a cleaning staff (average annual wages of $33,400) may gain sufficient experience to be promoted to a supervisory position that commands $49,500 annually. With additional on-the-job training, education, or certifications, this individual could then progress to a career as a general manager, which commands an average annual salary of $101,300.

Table 6: Potential Career Pathway – Tourism, Hospitality, and Recreation Industry Cluster

Occupation	Employment within Industry Cluster (2022)	Avg. Annual Wages (2022)	Typical Entry-level Education
Building Cleaning Workers	1,415	$33,400	High School Diploma or Equivalent
Supervisors of Building and Grounds Cleaning and Maintenance Workers	105	$49,500	Some college, no degree
Lodging Managers	166	$65,600	Bachelor's degree
General and Operations Managers	329	$101,300	Bachelor's degree

CASE STUDY

Pathways to Success from the Tourism, Hospitality, and Recreation Industry

Holiday Inn & Express Suites of Atascadero

The Holiday Inn & Express Suites of Atascadero is a locally owned and operated hotel located in San Luis Obispo County, an approximate 15-minute drive from Cal Poly State University. According to Amar Sohi, General Manager and Operational Owner of the Holiday Inn & Express Suites of Atascadero, hotel housekeepers have progressed to management positions, such as Housekeeping Manager and Breakfast Room Supervisor, reaching higher salaries and levels of responsibility. Amar also emphasized pathways to careers in destination management and city management. "The city loves people with hospitality experience because they think on their feet and move fast, making them a valuable asset, while they get a better quality of life with weekends and holidays". Thus, **entry-level jobs in the tourism industry can translate to successful careers in other fields**.

Careers in hospitality also provide an opportunity for financial stability for people that do not necessarily have the capital or connections to start their own business right away. As discussed in the case study below, a job in tourism can serve as a springboard to entrepreneurship.

CASE STUDY
Path to Entrepreneurship

Amar Sohi, Holiday Inn & Express Suites of Atascadero

Amar Sohi, General Manager and Operational Owner of the Holiday Inn & Express Suites of Atascadero, believes that holding an entry-level job in hospitality allowed him to familiarize himself with businesses parallel to tourism such as unique retail stores, gas stations, and motels. He developed a network and eventually had the opportunity to take over a failed liquor store.

While some may see owning a hotel as an unattainable business venture, Amar disagrees. He instead advises young professionals to start with a much smaller business venture, to make money, and develop a robust network.

Today, Amar is the operating owner of the Holiday Inn Express & Suites of Atascadero along with silent partners. He believes that it was his willingness to start small, save money and reinvest it in his business that allowed him to develop a trusting relationship with investors and become a business owner.

Furthermore, while there are significant opportunities to succeed within the tourism industry, SLO County has also invested in various training programs to support workers' upskilling to transition to other industries.

CASE STUDY
Upskilling Program

SLO CAL Welcome Program

Visit SLO CAL is a nonprofit, countywide destination marketing and management organization serving San Luis Obispo County, which administers the SLO CAL Welcome program. According to Chuck Davison, President & CEO of Visit SLO CAL, the program offers a first-of-its-kind customer service training that is specifically targeted at professionals working or volunteering in San Luis Obispo County's travel & tourism industry. The program – which is free and available in English and Spanish – provides entry-level workers in San Luis Obispo County's travel & tourism industry with the opportunity to upskill and pivot toward higher-paying career pathways with valuable client-facing skills.

Pathways in the Information & Communication Technology Industry

As noted in the cluster analysis, SLO County saw a significant decline in jobs in the ICT industry between 2018 and 2022. Thus, it is important that the county consider strategies to bolster career development and employment

growth within this industry (such as the bootcamps described in the callout box below), as jobs in this cluster tend to pay relatively high wages as compared to jobs in other clusters.

CASE STUDY

SLO Partners Coding Bootcamps

SLO Partners, an economic development initiative of the San Luis Obispo County Office of Education, works with local employers to identify local hiring needs and designs specific fast-tracked coding bootcamp training programs to teach in-demand skills. Registered local companies can then interview and hire the freshly upskilled graduates.

From 2017 to 2022, SLO Partners upskilled and reskilled 364 local county residents, resulting in a $7.5 million economic impact to SLO County. In 2022 alone, 76 local county residents attended SLO Partners bootcamps, and saw an average 34 percent increase in annual salary ($16,158) following bootcamp completion.

Table 7 illustrates a potential career pathway within the ICT industry. As shown, an entry-level worker employed in customer service earns an average annual salary of $49,600; however, with additional training, education, and experience, such an individual can progress to a career in technical support, which commands an average annual salary of $63,300; or a career in software and Web development, programming, or testing, which commands an average annual salary of $113,400.

Table 7: Potential Career Pathway – Information and Communication Technologies Industry Cluster

Occupation	Employment within Industry Cluster (2022)	Avg. Annual Wages (2022)	Typical Entry-level Education
Customer Service Representative	35	$49,600	High School Diploma or Equivalent
Secretaries and Administrative Assistants	17	$58,200	Some college, no degree
Computer Support Specialists	92	$63,300	Bachelor's degree
Software and Web Developers, Programmers, and Testers	551	$113,400	Bachelor's degree

In the longer term, it will be important to consider the impact of technological development upon employment in the global IT industry, particularly with respect to artificial intelligence (AI) and machine learning (ML). Fears of large-scale job displacement due to automation have arisen, particularly in mid-tier jobs, which have been traditionally perceived as vulnerable since they are regarded as more codifiable and programmable (as opposed to jobs that require a higher level of sensory perception, decision-making acumen, and other skills not as well suited to automation).

However, recent research has found that AI and ML have not significantly displaced workers. Rather, the technologies have primarily boosted productivity and resulted in a reallocation of resources, as the existing workforce is shifted to other tasks without a significant reduction in total employment.[21]

Regardless, the United States Bureau of Labor Statistics (BLS) predicts that computer-related jobs will increase by at least 11.5 percent between 2019 and 2029. While ML engineers and data analysts only accounted for 76,000 jobs in 2019, these categories were expected to grow to 101,000 jobs in 2029.[22]

Furthermore, according to LinkedIn, "ML engineer" ranked fourth in its list of the top 25 "jobs on the rise" in the U.S. in 2022. On average, ML engineer jobs commanded annual salaries ranging from $72,600 to $170,000. Most ML engineering job opportunities were posted in San Francisco, Seattle, and Los Angeles. The top roles "transitioned from" included software engineer, data scientist, and AI specialist, and the most common skills cited by ML engineers in 2022 included deep learning, TensorFlow, and natural language processing.[23]

Given SLO County's proximity to key tech centers in San Francisco and Los Angeles, AI and ML engineering training programs present an opportunity for the county to develop and attract a rich talent pool to augment its share of Tier 1 jobs.

Further, from a policy standpoint, it will be important to consider how existing workers in the tech field can be supported as their activities shift over time, such as the implementation of apprenticeships that allow workers to retrain while continuing to earn income. Digital education action plans can also be implemented to ensure that workers possess basic digital skills, including rudimentary knowledge of computer science, technology, engineering, or math, as well as other "soft" skills that can complement new technologies, such as communication and social skills.

Pathways in the Manufacturing Industry

Table 8 illustrates a potential career pathway in the mid-tier Manufacturing industry. As shown, an entry-level position in assembly or fabrication commands an average annual salary of $37,600. However, with additional training, education, and experience, an individual in such a position can advance to a more lucrative career as a manufacturing supervisor, which commands an average annual salary of $61,200; and even advance to a position as an industrial production manager, which commands an average annual salary of $128,100.

[21] Acemoglu D., G. Anderson, D. Beede et al. 2022. "Automation and the Workforce: A Firm Level View From the 2019 Annual Business Survey." Paper presented at the NBER/CRIW conference on Technology, Productivity and Economic Growth, Washington DC, March 2022. http://pascual.scripts.mit.edu/research/abs/

[22] Michael J. Handel, "Growth trends for selected occupations considered at risk from automation," Monthly Labor Review, U.S. Bureau of Labor Statistics, July 2022, https://www.bls.gov/opub/mlr/2022/article/growth-trends-for-selected-occupations-considered-at-risk-from-automation.htm

[23] https://www.linkedin.com/pulse/linkedin-jobs-rise-2022-25-us-roles-growing-demand-linkedin-news/

Table 8: Potential Career Pathway – Manufacturing Industry Cluster

Occupation	Employment within Industry Cluster (2022)	Avg. Annual Wages (2022)	Typical Entry-level Education
Assemblers and Fabricators	212	$37,600	High School Diploma or Equivalent
Supervisors of Production and Operating Workers	88	$61,200	Some college, no degree
Project Management Specialists	18	$90,800	Bachelor's degree
Industrial Production Managers	42	$128,100	Bachelor's degree

Supporting the training and education of local Manufacturing workers is a vital element in advancement along career pathways. Continuing education may focus on developing the skills necessary to adapt to technological developments within the industry that are expected to transform the nature of work, such as additive manufacturing (AM, commonly known as 3D printing).

3D printing has already made significant inroads in the global engineering and manufacturing sectors, with applications ranging from jet engines to medical devices and implants. However, 3D printing innovations demand new skills and capabilities, within the categories of computer-aided design (CAD), material technology, finishing[24], machine calibrating, and software/information technology related to recording, maintaining, and updating data generated from 3D printing processes.

According to a survey conducted by Deloitte, 9 out of 10 manufacturers nationwide struggle to find the skilled workers needed to perform 3D printing tasks, and 54 percent of manufacturers do not have a plan in place to address the gap.[25] The shortage of workers skilled in 3D printing technology has been exacerbated by an aging population of manufacturing employees, declining real wages in the manufacturing sector, a lack of interest in manufacturing from Millennials[26], and reluctance to adapt to new design paradigms. Furthermore, retention rates for students in STEM programs are falling, and the number of U.S. students enrolled in engineering graduate programs is declining, leading to a significant gap between supply and demand for STEM graduates.

To mitigate this growing problem, universities such as the Massachusetts Institute of Technology (MIT) and the Georgia Institute of Technology have launched 3D printing labs to deliver hands-on training. Other organizations, such as Virginia's Commonwealth Center for Advanced Manufacturing (CCAM), have collaborated with community colleges to establish a network of regional 3D printing training centers of excellence (CoEs) and to develop an Advanced Manufacturing Apprentice Academy (AMAA) to provide students with training on modern 3D printing equipment, professional certifications, and guidance on future pathways to employment in the field. Providers

[24] Finishing activities include support removal, grinding, sanding, cutting, filling, painting, coating, and polishing.
[25] https://www2.deloitte.com/us/en/insights/focus/3d-opportunity/3d-printing-talent-gap-workforce-development.html
[26] According to Deloitte, Millennials are also motivated by different professional drivers than previous generations, including desires for empowerment to innovate, making an impact within their company and beyond, having control over their career paths, having opportunities to lead, and solving complex, challenging problems. Many Millennials perceive that manufacturing jobs are not well-suited to these priorities.

such as Coursera, Udemy, and Lydnow also offer online learning programs focusing on 3D printing applications, and MIT and The Open University offer online coursework focused on 3D printing.

In general, however, there remains a dearth of training programs specific to 3D printing, as many instructors lack sufficient hands-on experience to provide technology-specific instruction, and some instructors may be reluctant to cover a technology considered yet unproven at the industrial level.

Employers can partially mitigate this skills gap by offering on-the-job training, although it may be difficult for employees to upskill sufficiently rapidly, given the level of difficulty associated with adapting to 3D printing approaches. Regardless, according to Deloitte, 94 percent of manufacturing executives surveyed indicated that they believed that employee training is extremely, very, or moderately important to mitigating the effects of existing skills shortages for a skilled production workforce.

Thus, as the manufacturing industry transitions to new techniques such as 3D printing, it is critical that the county continue to invest in training programs to ensure that its current workforce will have the skills necessary to achieve success amidst the rapidly evolving technological landscape.

Higher Education Opportunities

Higher education is an important tool for advancement within various career pathways. To obtain a better understanding of local educational opportunities, an additional analysis was conducted of the programs offered by Cuesta College 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 B: Cuesta College Pathways to Higher-Earning Jobs**.

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 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 Cuesta College 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 Cuesta College programs to provide an estimate of the *national average median earnings 4 years after graduation* to estimate what earnings students of these programs could expect upon graduation from these programs.

As shown in **Appendix B: Cuesta College Pathways to Higher-Earning Jobs**, students who complete Cuesta College's Registered Nursing program can expect to earn $91,653 four years after graduation, while students that complete Cuesta College's Engineering program can expect to earn $61,961 four years after graduation. Other programs offered by Cuesta College in the fields of Agricultural Services, Construction Services, and Computer Sciences also offer pathways to higher-paying jobs with expected median earnings four years after program completion exceeding the 2021 median income of the citizen employed population 16 years and over in SLO County, $41,211.[27]

California Polytechnic State University (Cal Poly) also offers a wealth of educational opportunities, with a student body of 22,287 undergraduates and graduates. Cal Poly has ranked #1 Best in the West by the U.S. News and World Report for the last 30 years and has ranked within Forbes' Top 25 in the West list. Cal Poly's six academic colleges offer more than 60 majors for undergraduates. Over 35 of its master's degree programs, teaching

[27] United States Census Bureau. American Community Survey 5-Year Estimates (2017-2021).

credential programs, and blended degree programs allow students to earn bachelor's and master's degrees concurrently. Professional and graduate certificate programs are also available.

On average, 95 percent of Cal Poly's undergraduates find a job or are admitted to a graduate program within nine months of graduation.[28] The average median earnings of Cal Poly students four years after graduation is $75,168, considerably higher than the 2021 median income of the citizen employed population 16 years and over in SLO County, $41,211.

Thus, it is important that the county continue to work with local higher learning institutions and other providers of skills training, such as labor unions, to support efforts to fill gaps in pathways to higher-paying jobs. Evaluating the current inventory of local degree and training programs that fill the gaps between skills demanded by high-paying employers and skills available from the current workforce will reveal the types of courses needed to support transitions to higher-paying jobs. Partnerships with local higher learning institutions such as Cuesta College and Cal Poly, as well as other providers, such as local labor unions, can ensure that training courses and/or programs will be developed to help fill these gaps.

Ecosystem for New Businesses

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. This section summarizes some of the partner and community resources available to support the growth of new business in SLO County.

Cal Poly offers several educational opportunities to support the development of entrepreneurial skills within its student population, as well as various business development services targeted toward local entrepreneurs. For example, the university houses an on-campus student community called Cal Poly Entrepreneurs (CPE) that hosts weekly meetings, workshops, trips, and events "to provide a forum for students to network and share ideas in an environment that fosters innovation and entrepreneurship". Cal Poly also hosts various annual events aimed at developing entrepreneurs' marketing skills, such as an Elevator Pitch Competition, a Startup Launch Weekend event, and the Innovation Quest (iQ) event.

In addition, Cal Poly maintains an Innovation Sandbox equipped with state-of-the-art equipment, educational programs, and student mentors, to give students the opportunity to gain experience with the latest prototyping/ideation tools. Cal Poly also offers an on-campus incubator called the Hatchery, where students from all majors can obtain hands-on experience launching a company through mentorship, weekly workshops, and startup assignments. Finally, Cal Poly's Summer Accelerator program provides students and alumni with hands-on mentorship, weekly workshops, guest speakers, and $10,000 in seed funding to develop new businesses. Over the course of 13 weeks, student and alumni entrepreneurs are given the tools, funding, and space to launch businesses at the university's HotHouse location.

Cal Poly also provides various services to the public, hosting free forums targeted toward startups and small business, which offer insights on entrepreneurial challenges and models of success. In addition, Cal Poly's Incubator program provides early-stage local businesses with office space, conference rooms, a peer network, as well as training to facilitate growth, including an advisory board, a direct pipeline to statewide angel groups and venture capital firms, monthly peer-to-peer roundtable discussions, one-on-one mentorship, pitch events and networking opportunities.[29] Cal Poly's Small Business Development Center (SBDC) also provides no-cost business

[28] https://www.calpoly.edu/about/facts-and-figures

[29] The Incubator program primarily focuses on technology and innovation, but all industries are served. Specialty verticals include aerospace, agriculture technology, and medical technology.

consulting and training services to local tech companies to help entrepreneurs strengthen their business and entrepreneurial skills.

Mission Community Services Corporation (MCSC) also supports new local businesses. MCSC offers monthly business workshops, entrepreneurial training courses and no-cost business consulting to its training course graduates to support potential entrepreneurs and small business owners, with special assistance to women, low-income, minority, veterans, and non-profit businesses in San Luis Obispo, Kern, and Monterey Counties. MCSC's "Explore, Design & Launch" program offers eight sessions of entrepreneurship training, plus four follow-up mentoring sessions to equip students with the necessary knowledge, tools, and resources to start and/or grow a business.

Furthermore, SCORE – a national nonprofit organization – provides confidential face-to-face mentoring sessions, monthly workshops, email and phone mentoring services to business owners and potential entrepreneurs in SLO County and the Santa Maria Valley. SCORE also hosts live online training webinars and provides entrepreneurship e-guides on its website. In addition, the Fresno office of the Small Business Administration provides educational opportunities, business mentoring, and counseling to small businesses in Central and Coastal California (which includes SLO County).

Additionally, Downtown SLO – a nonprofit whose mission is "to foster an economically vibrant downtown" – supports local businesses by collaborating with City staff to ensure that local business concerns are being addressed in a timely fashion. The organization also promotes local businesses and events via ad campaigns. The City of San Luis Obispo also supports local businesses through promotions like the Support Local campaign, which featured small local businesses in a "Meet Your Neighborhood" blog series and 47 Support Local articles in local and regional media in 2021; and a Buy Local bonus program that provided gift cards to local businesses to qualified shoppers, resulting in more than $728,000 in direct local spending in just five months in 2021.

Since one of the stated priorities of the County's economic plan has been to "promote SLO County as a haven for innovation and entrepreneurship," SLO County should continue to implement policies targeted at supporting local public and private incubators, accelerators, co-working spaces, and maker spaces for "future-oriented industries" that have access to rich labor pools in nearby tech centers. In addition, connecting potential entrepreneurs to local sources of micro-lending and venture capital funding will be crucial to continuing to develop the county's ecosystem for new businesses.

REGIONAL PERSPECTIVE

REACH

REACH is a regional economic action coalition uniting public private, and civic leaders across the Central Coast of California, with a mission to support economic planning and unlock economic opportunity for San Luis Obispo and Santa Barbara Counties.

According to Joshua Boswell, the Vice President of Policy and Economic Development at REACH, SLO County's entrepreneurial ecosystem provides many advantages for new business growth but faces challenges as well.

An attractive location with a desirable quality of life, a highly educated and skilled workforce, and a robust start-up culture supported by a range of assets including incubators, small business resources, innovative training programs, and top-tier higher education programs are among the advantages Joshua notes. The region's high cost of living and less competitive wages, however, can make it hard for businesses to attract and retain the talent they need to grow. He points to the region's high housing burden as a major factor holding back business growth.

Local businesses have succeeded in attracting higher levels of venture capital funding in recent years, which Joshua believes has raised the county's profile as a place to do business. But the tight labor market combined with limited commercial and industrial space could curb the ability to scale and expand locally and push burgeoning businesses to invest elsewhere.

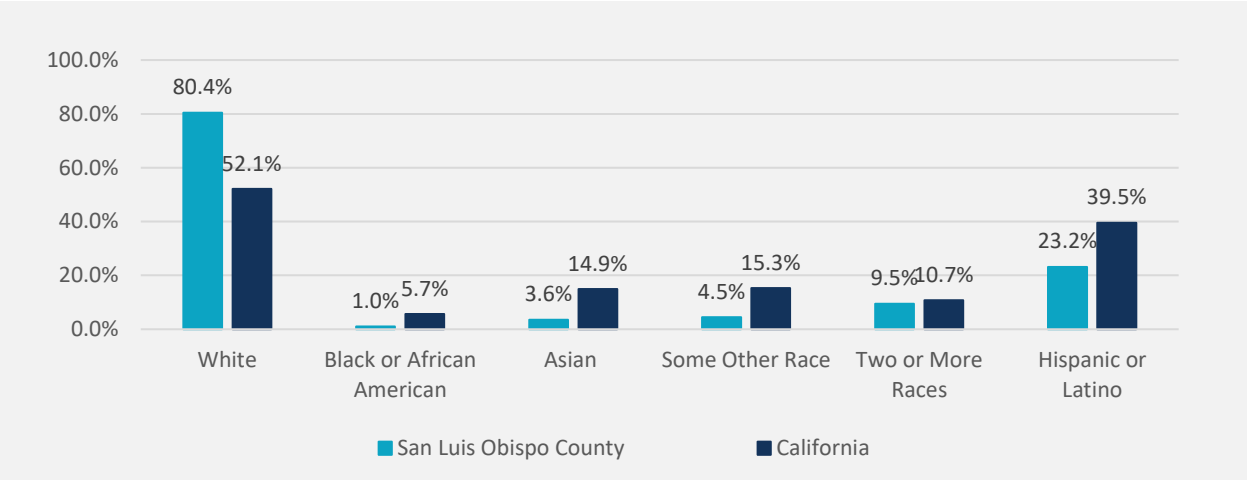
The region can build a more resilient economy by diversifying beyond traditional pillars, Joshua believes. Cross-sector efforts to invest in developing the workforce and building the infrastructure to support emerging industries such as clean tech, renewable energy, space and advanced air mobility could have big impact.

Workforce Profile

Demographics

San Luis Obispo County has a much higher proportion of White (non-Hispanic) residents (80.4 percent) than the statewide average (52.1 percent) (Figure 9). In SLO County, approximately 23.2 percent of residents identify as Hispanic or Latino, which is lower than the state average of 39.5 percent.

Figure 9. Race and Ethnicity in San Luis Obispo County (2021)[30]



San Luis Obispo County also has a higher proportion of older residents compared to the rest of the state. The county population aged 65 years or older exceeds the statewide average by six percentage points (19.6 percent versus 14.4 percent) (Figure 10). However, Figure 11 reveals that the county's population growth is primarily influenced by the 18–24-year-old age group, which includes Cal Poly's resident student population.[31]

[30] United States Census Bureau. American Community Survey 5-year Estimates (2021).

[31] 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 Cal Poly SLO are typically considered local residents by the U.S. Census Bureau.

Figure 10. Age Composition in San Luis Obispo County (2021)[32]

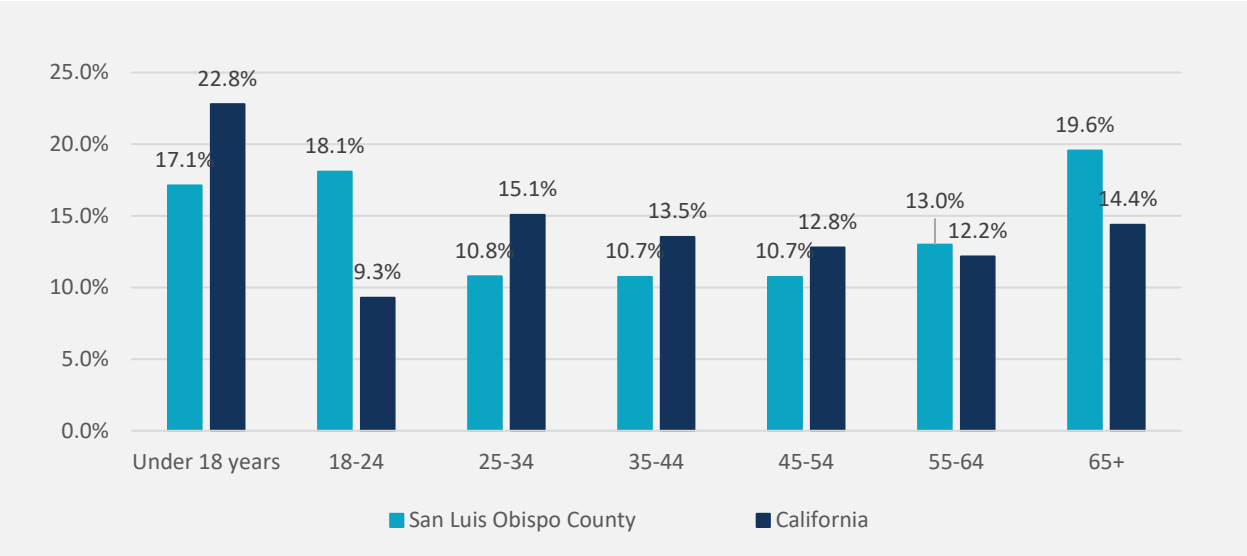
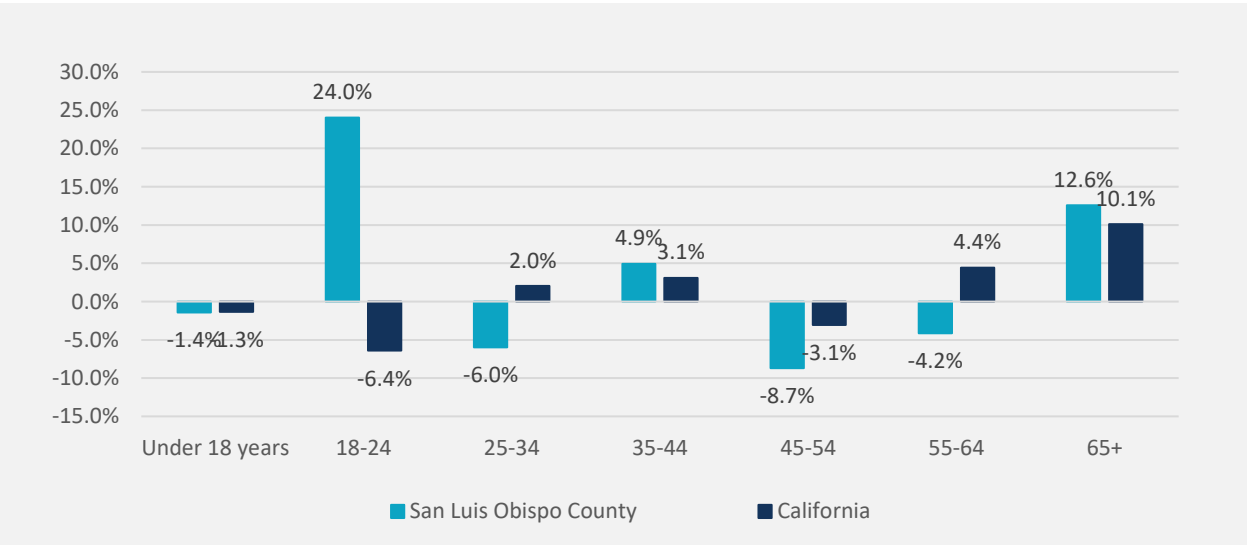


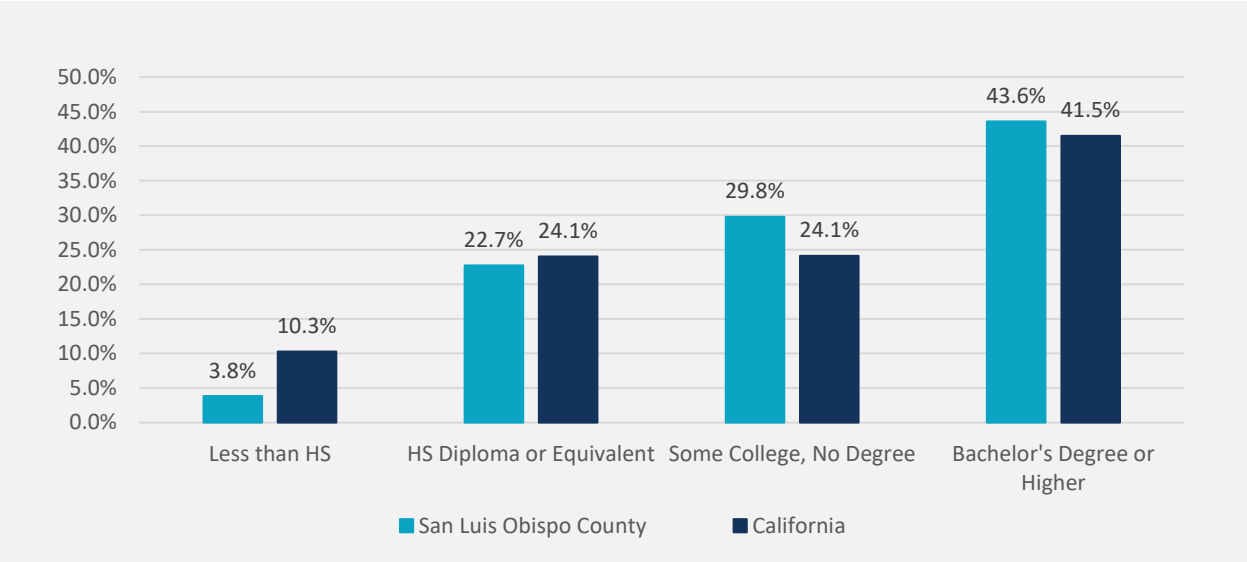
Figure 11. Population Growth by Age Group in San Luis Obispo County (2017-2021)[33]



San Luis Obispo County residents exhibit higher educational attainment compared to the statewide average. The proportion of residents with less than a high school diploma is smaller in SLO County, accounting for only 3.8 percent, whereas the statewide average stands at 10.3 percent. Approximately three in ten county residents have attended some college without obtaining a degree, and over four in ten county residents hold a bachelor's degree or higher (Figure 12).

[32] United States Census Bureau. American Community Survey 5-year Estimates (2021).
[33] United States Census Bureau. American Community Survey 5-year Estimates (2021).

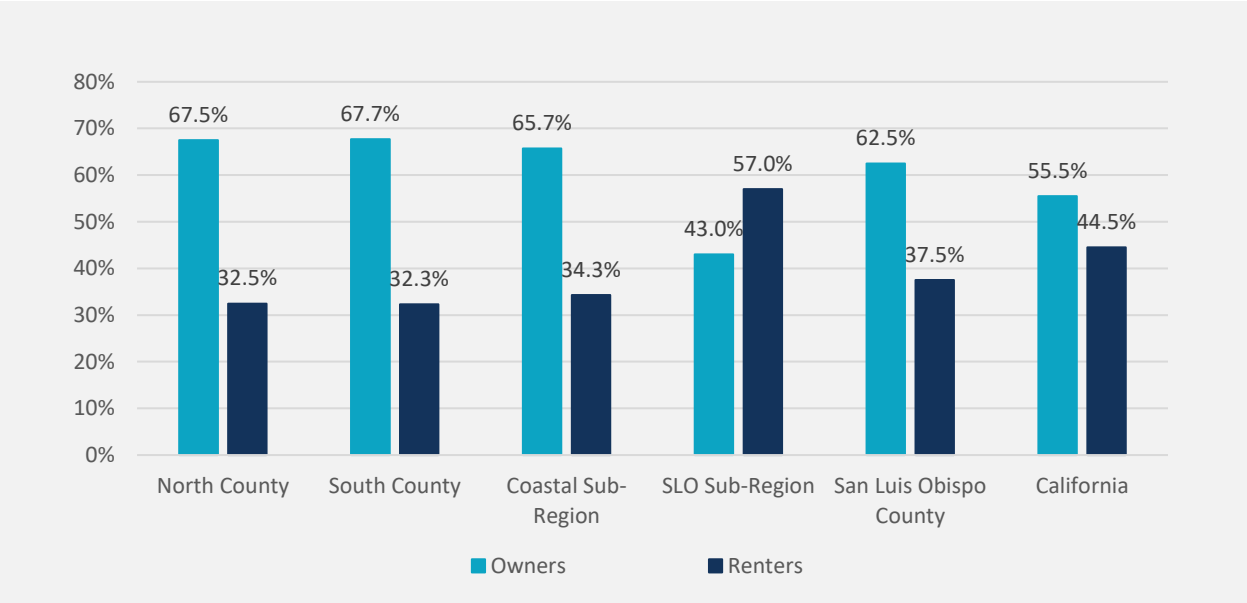
Figure 12. Educational Attainment of Populations Aged 25 and older in San Luis Obispo County (2021)[34]



Housing Costs

Approximately 62.5 percent of San Luis Obispo residents are homeowners, approximately seven percentage points higher than the statewide average in California (Figure 13). Approximately 37.5 percent of county residents are renters, as compared to 44.5 percent statewide.

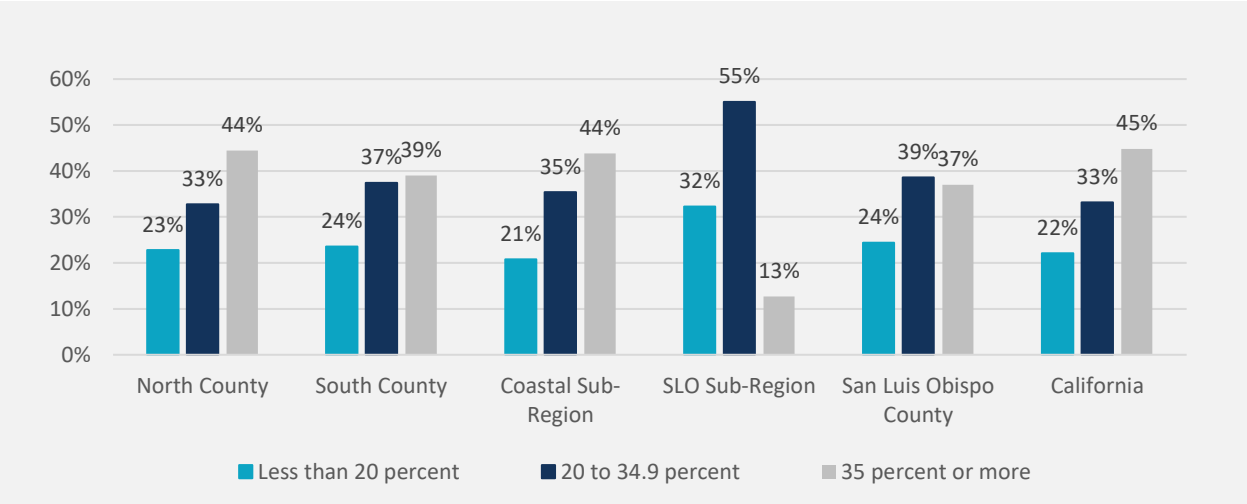
Figure 13. Share of Homeowners and Renters in San Luis Obispo County (2021)[35]



[34] United States Census Bureau. American Community Survey 5-year Estimates (2021).
[35] United States Census Bureau. American Community Survey 5-year Estimates (2021).

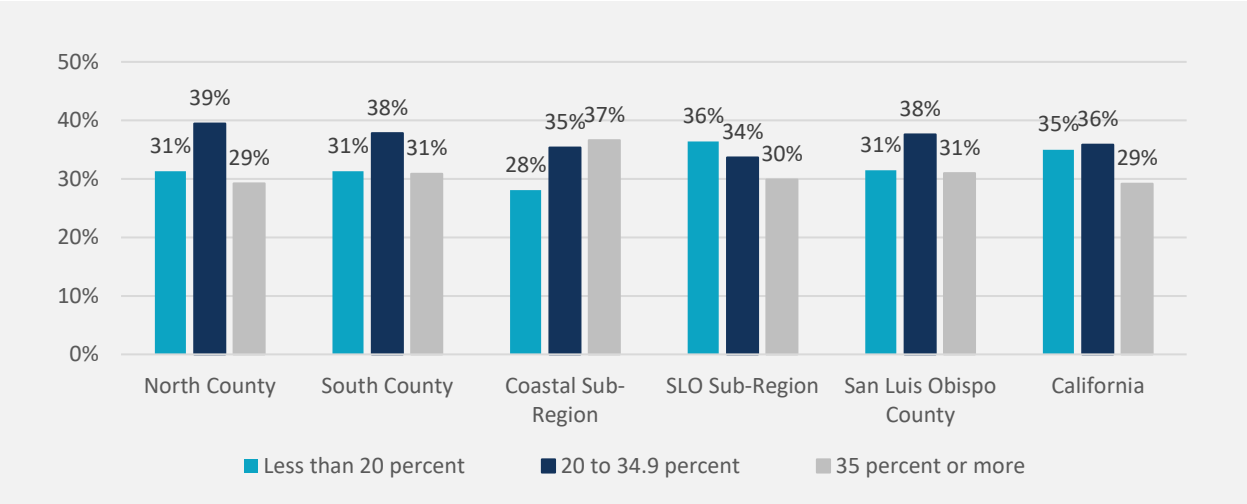
A smaller share of renters in San Luis Obispo County spends 35 percent or more of their income on housing as compared to renters within the state of California (37 percent versus 45 percent). The share of renters spending less than 20 percent of their income on housing in SLO County was relatively consistent with the statewide average. Furthermore, the distributions of renters' housing burdens within the county were relatively similar across all regions other than the SLO sub-region, where only 13 percent of renters spent 35 percent or more of their income on housing (Figure 14).

Figure 14. Renters' Share of Income Spent on Housing Costs (2021)[36]



Approximately 31 percent of homeowners with a mortgage in San Luis Obispo County allocated 35 percent or more of their income to housing, as compared to 29 percent of homeowners with a mortgage statewide (Figure 15).

Figure 15. Homeowners' Share of Income Spent on Housing Costs (2021)[37]

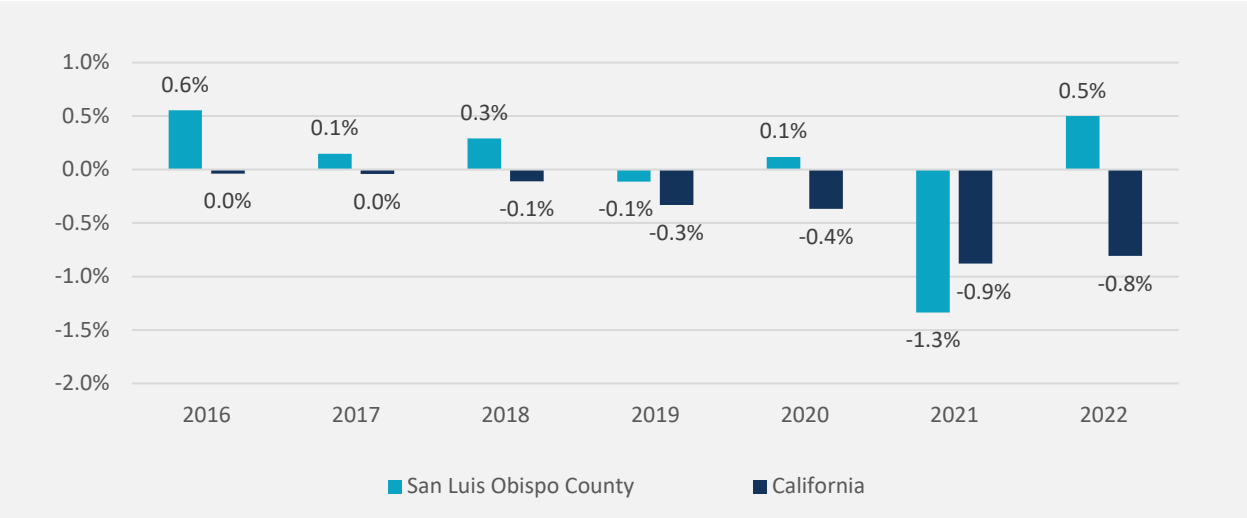


[36] United States Census Bureau. American Community Survey 5-year Estimates (2021).
[37] United States Census Bureau. American Community Survey 5-year Estimates (2021).

Net Migration

Between 2020 and 2021, nearly 350,000 people left California, representing a 0.9 percent decrease in the state population[38]. During this same period, nearly 3,800 residents left SLO County, representing a 1.3 percent decrease in the county's population. However, in 2022, the county's population increased by 0.5 percent, in contrast to California's 0.8 percent population decrease. This positive net migration in 2022 partially offsets the significant outflow SLO county sustained in 2021 (Figure 16) and shows overall population in the County differing from what is happening in the state.

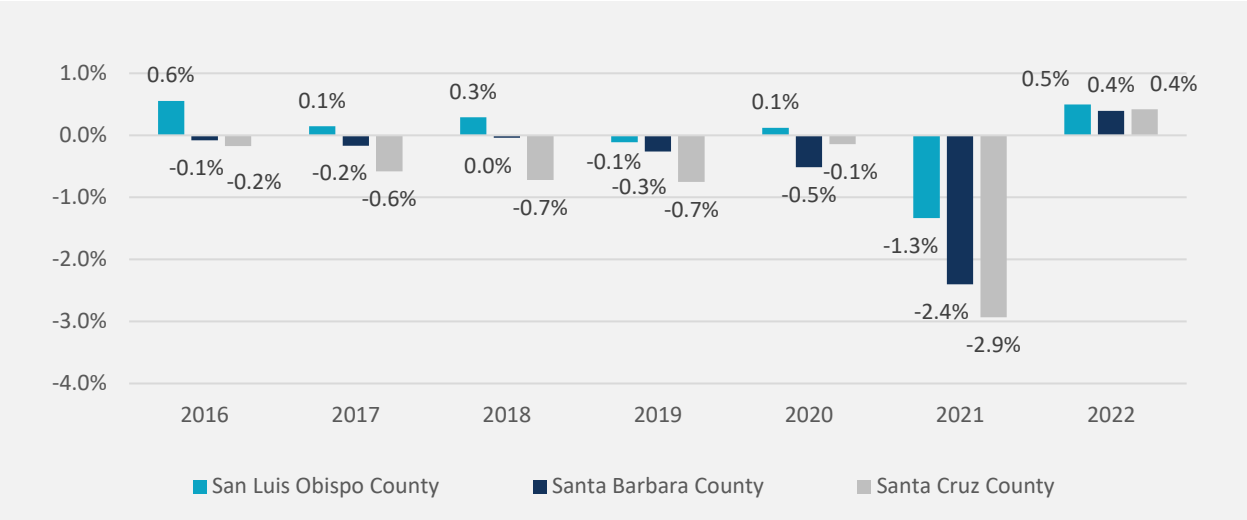
Figure 16. Net Migration Flows in San Luis Obispo County and California (2016-2022)[38]



SLO County did experience positive net migration from 2016-2020, while the nearby coastal communities of Santa Barbara County and Santa Cruz County experienced moderate population losses during the same period. However, post-pandemic net migration patterns in SLO County mirror the nearby coastal communities of Santa Barbara County and Santa Cruz County, with all three counties experiencing considerable population decreases in 2021 and moderate population increases in 2022. However, SLO County sustained lesser population losses of 1.3 percent in 2021 compared to Santa Barbara County and Santa Cruz County, with these communities losing 2.4 percent and 2.9 percent of their populations, respectively. SLO County also exhibited slightly larger population growth in 2022 compared to these other coastal communities, growing 0.5 percent compared to 0.4 percent in Santa Barbara County and 0.4 percent in Santa Cruz County (Figure 17).

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

Figure 17. Net Migration Flows in San Luis Obispo County and Other Coastal Communities (2016-2022)[39]

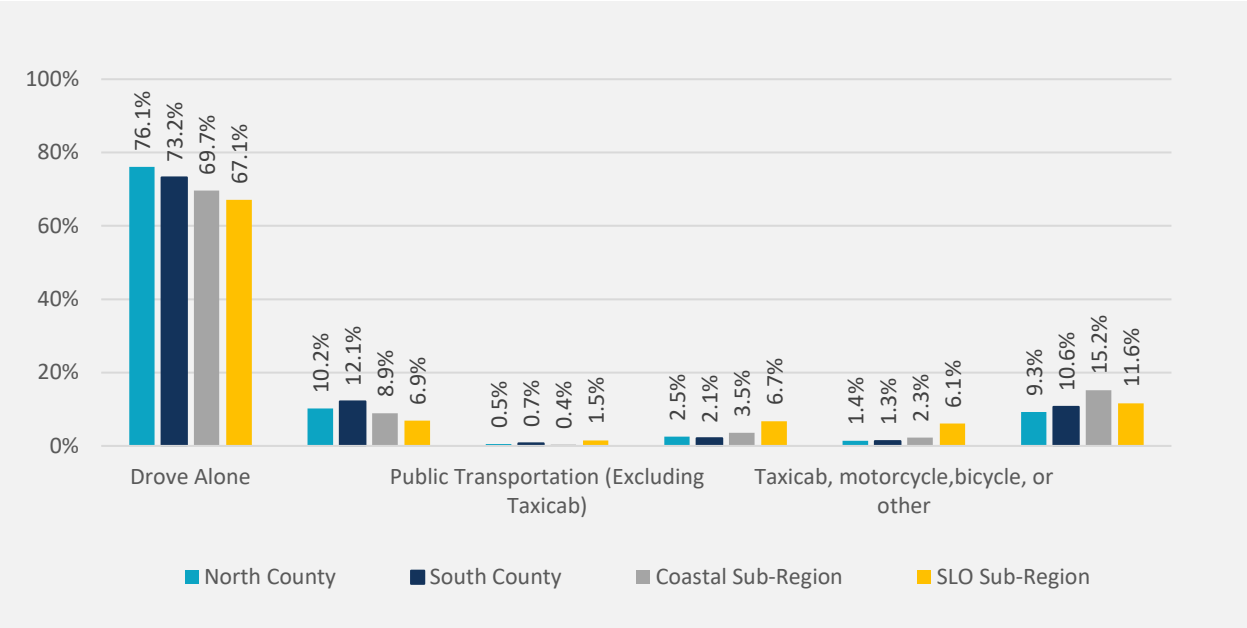


Transportation

Driving alone remains the primary mode of transportation to work in San Luis Obispo County. Residents of the south county region are more inclined to carpool (12.1 percent) than residents in other sub-regions of the county, while those in the SLO sub-region are more likely to walk (6.7 percent) or take a taxicab to work (6.1 percent) than residents of other sub-regions in the county. Coastal sub-region residents have a higher tendency to work from home than residents of other sub-regions in the county, with 15.2 percent of residents working from home in 2021 (Figure 18).

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

Figure 18. Typical Means of Transportation to Work (2021)[40]



In recent years, SLO County residents have shifted towards alternative modes of transportation for commuting, including working from home, carpooling, or utilizing taxicabs, motorcycles, bicycles, or other means (Figure 19). The prevalence of driving alone has decreased across all sub-regions, except for the SLO sub-region, while the use of public transportation has also decreased. However, transportation patterns are expected to continue to shift as the economy's recovery from the COVID-19 pandemic progresses, and an increasing number of workers return to the workplace.

In 2021, the prevalence of working from home increased drastically across all sub-regions, due to the COVID-19 pandemic and its impacts on commuting patterns caused by shelter-in-place orders. However, a larger proportion of SLO County residents already worked from home compared to state and national averages from 2017-2020, and the proportion of remote workers steadily increased over the same period. Overall, in 2021, 10.9 percent of SLO County residents worked from home, as compared to 11.4 percent in California and 9.7 percent nationwide (Figure 20).

[40] United States Census Bureau. American Community Survey 5-year Estimates (2021).

Figure 19. Change in Means of Transportation to Work (2017-2021)[41]

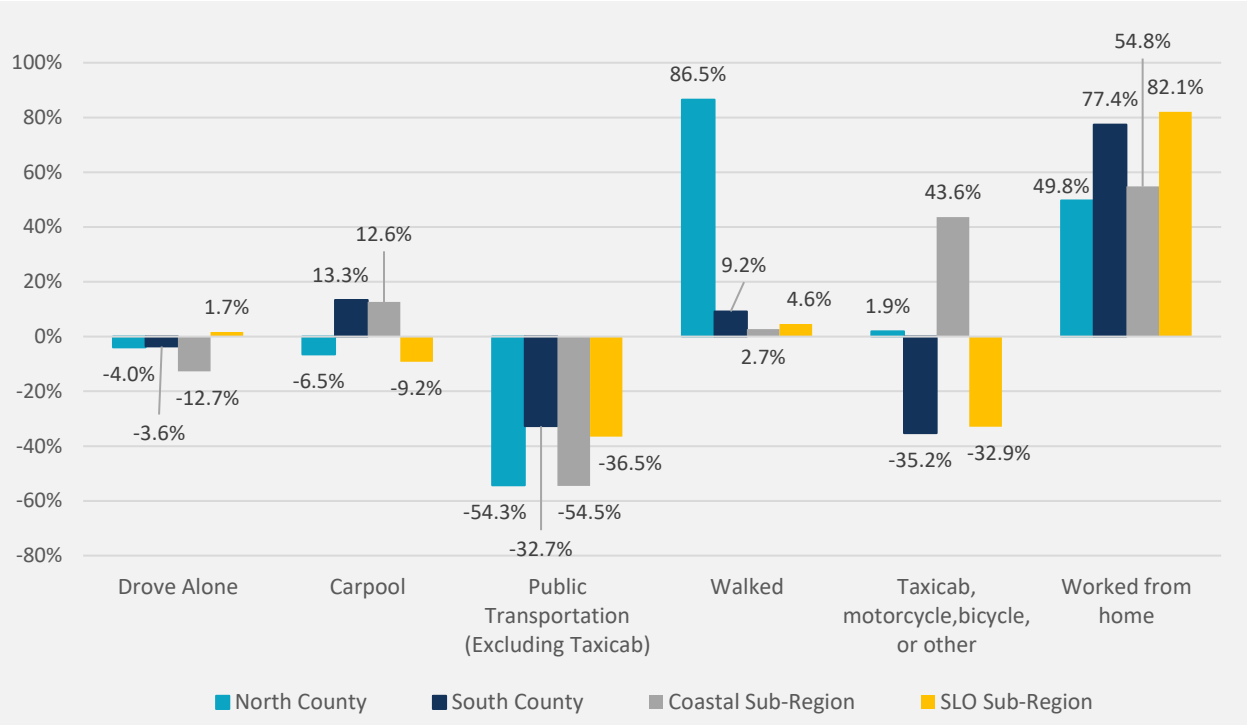
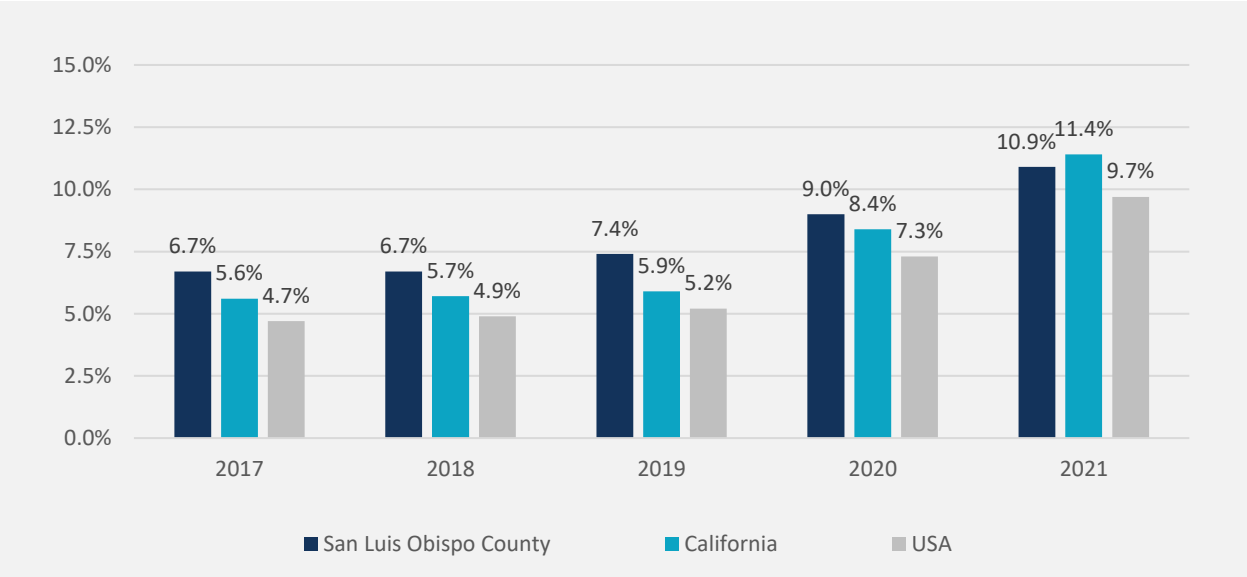


Figure 20. Percent of Residents Working from Home (2021)[42]



[41] United States Census Bureau. American Community Survey 5-year Estimates (2017-2021).
[42] United States Census Bureau. American Community Survey 5-year Estimates (2021).

Industry Sector Deep Dive Assessments

The recent passage of the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the US CHIPS and Science Act will inject billions of dollars into the US economy with a focus on expanding infrastructure, bolstering domestic manufacturing and supply chains, and driving research and development. This influx of funding presents a significant opportunity for San Luis Obispo County to enhance its transportation, water, and energy infrastructure; climate change resiliency; and housing stock.

This section of the report delves into the workforce that will drive these revitalization efforts within the county. Infrastructure-related jobs are often well-paying and offer employment opportunities for individuals with varying levels of education. However, fully capitalizing on the opportunities presented by these projects will necessitate strategic workforce planning to ensure that the residents of San Luis Obispo County are adequately trained and prepared for employment prospects that arise.

Infrastructure Financing Overview

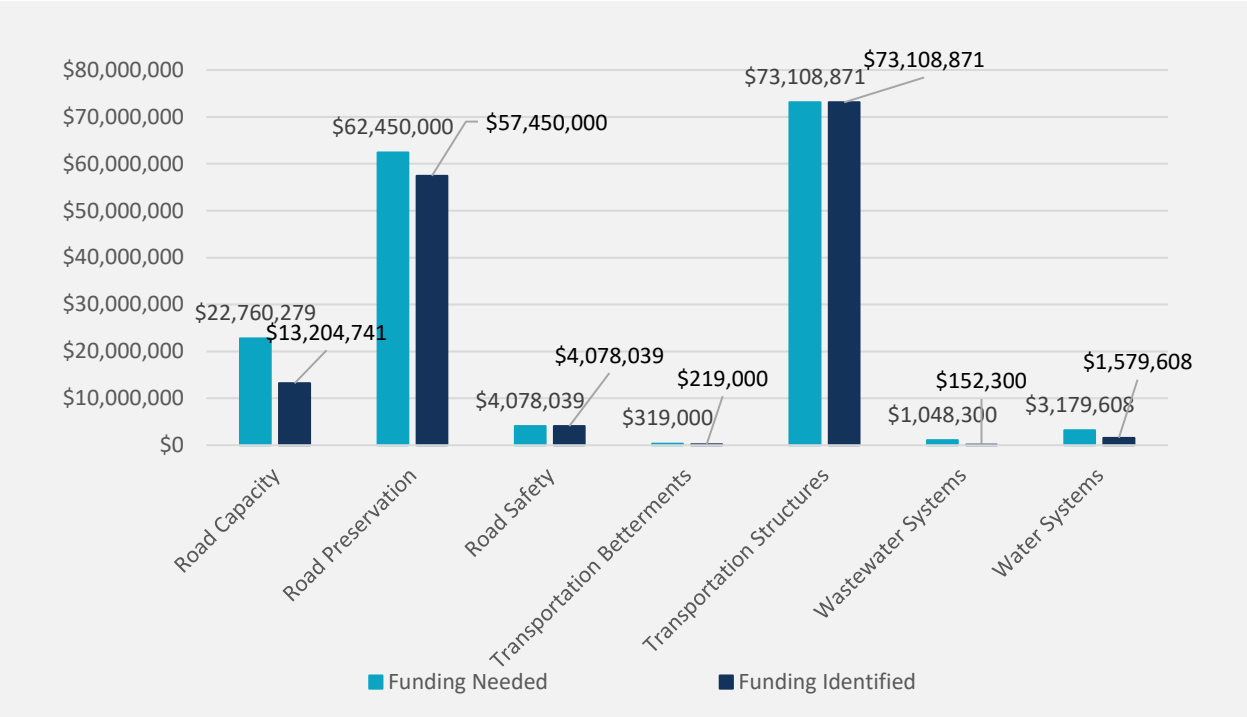
The County of San Luis Obispo launched a Five-Year Capital Improvement Plan designed to identify, prioritize, and monitor the progress of infrastructure and facilities projects costing over $100,000 from FY 2023-2024 through FY 2027-2028.[43] The County's objectives involve enhancing and expanding various facets of infrastructure, such as flood control, road capacity, road preservation, road safety, transportation improvements, transportation structures, wastewater systems, and water systems.

The plan encompasses a total of 179 projects, including 52 infrastructure projects with an estimated collective value of $290 million. Out of these, 13 projects have their funding needs met in the current fiscal year. Aside from this capital improvement plan, there are city-specific projects planned, as well as bigger projects like Central Coast Blue and the development of the Offshore Wind industry.

Figure 21 provides an overview of the funding needed and progress made in securing funding for each type of infrastructure project from FY 2023-2024 through FY 2027-2028.

[43] County of San Luis Obispo Department of Public Works. Facilities and Infrastructure Five-Year Capital Improvement Plan. https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Projects/Capital-Improvement-Projects/FY-2023-2024/5-Year-Plan.pdf

Figure 21. Infrastructure Projects: Funding Needed and Identified[44]



To maintain existing infrastructure in San Luis Obispo County, the plan outlines the following programs:

- **Pavement Management Program:** This program aims to identify roads with a low Pavement Condition Index that would incur significant maintenance costs over time and provides for an annual investment of $10 million to address these problems.
- **Bridge Rehabilitation and Replacement Program:** The county has nearly 200 bridges in need of maintenance, rehabilitation, or replacement. Currently, the county is investing in 12 bridge projects valued at over $113 million.
- **Flood Control Facilities**: The plan includes initiatives related to the maintenance and improvement of flood control facilities.
- **Water Systems**: The County's plan encompasses efforts to enhance and maintain water systems infrastructure.
- **Wastewater Systems**: The plan also addresses the maintenance and development of wastewater systems in the county.

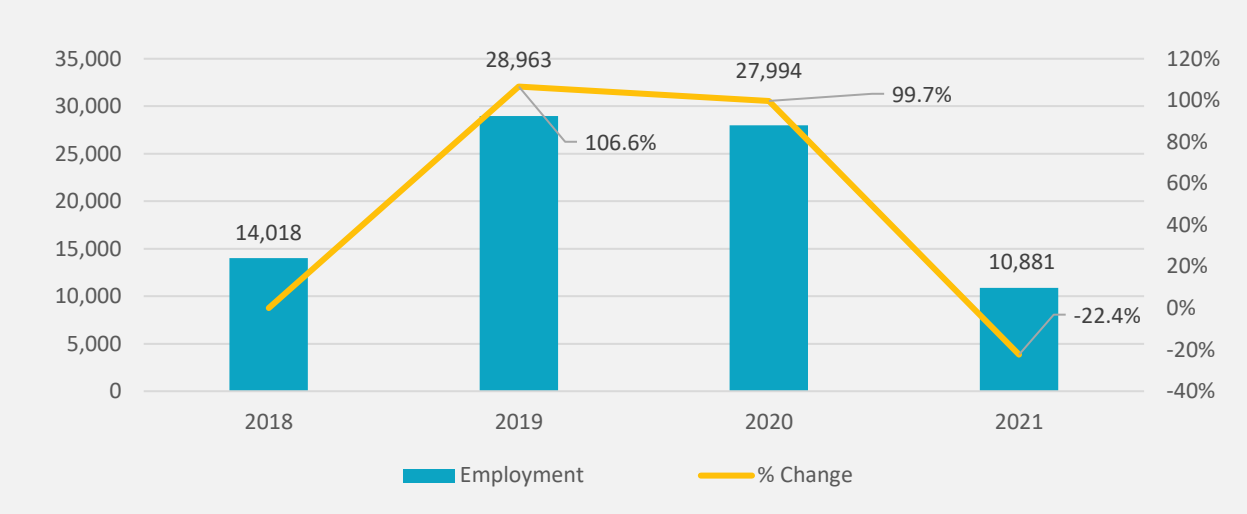
[44] County of San Luis Obispo Department of Public Works. Facilities and Infrastructure Five-Year Capital Improvement Plan. https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Projects/Capital-Improvement-Projects/FY-2023-2024/5-Year-Plan.pdf

Current Infrastructure Workforce

Energy

Between 2018 and 2021, SLO County's energy workforce consisted of nearly 10,900 workers. Figure 22 illustrates the significant impact of the COVID-19 pandemic on the county's energy workforce, which has exhibited a 22 percent decrease during this period.

Figure 22. Energy Workforce Overall Employment (Cumulative % Change, 2018-2021)[45]



Future Challenges to the Local Energy Industry

Diablo Canyon Power Plant

Diablo Canyon Power Plant (DCPP) is a nuclear power plant located in SLO County that provides low-cost, carbon-free electricity for more than 3 million Californians. DCPP is currently licensed to operate Unit 1 into 2024, and Unit 2 into 2025.

However, in September 2022, California Governor Gavin Newsom signed legislation (SB 846) seeking to extend operations at DCPP past its current license period, while the United States Nuclear Regulatory Commission considers its license renewal application. The California Energy Commission (CEC) has recommended that the state pursue extending DCPP's operation through 2030 to ensure reliability of the state's electricity supply.

Closure of the DCPP would likely disrupt employment within SLO County's Energy cluster, as DCPP jobs represents a significant share of employment within the sector. It will be important for the county to continue to monitor the political developments surrounding the impending closure of the DCPP to ensure that workers that may be displaced in the future can transition to equivalent positions within the county, whether in the Energy cluster or other fields.

[45] U.S. Department of Energy, United States Energy and Employment Report, 2022.

Water

In recent years, San Luis Obispo County's water workforce, comprising positions in Water Supply and Irrigation Systems, Water and Sewer Line and Related Structures Construction, and Sewage Treatment Facilities, has experienced a steady decline. Between 2019 and 2021, there was an 8.7 percent decrease in employment within the sector (Figure 23).

Despite the overall decrease in the workforce since 2019, it is worth noting that nearly six out of ten workers fall within the 25-34 and 35-44 age groups (Table 9), indicating a dynamic workforce that is unlikely to face high rates of retirement in the near future. However, as the industry is likely to see increasing labor demand in the near future, it will be critical to continue to identify opportunities that will attract young workers and promote future employment growth in the sector.

Figure 23. Water Workforce Overall Employment (Cumulative % Change, 2018-2021)[46]

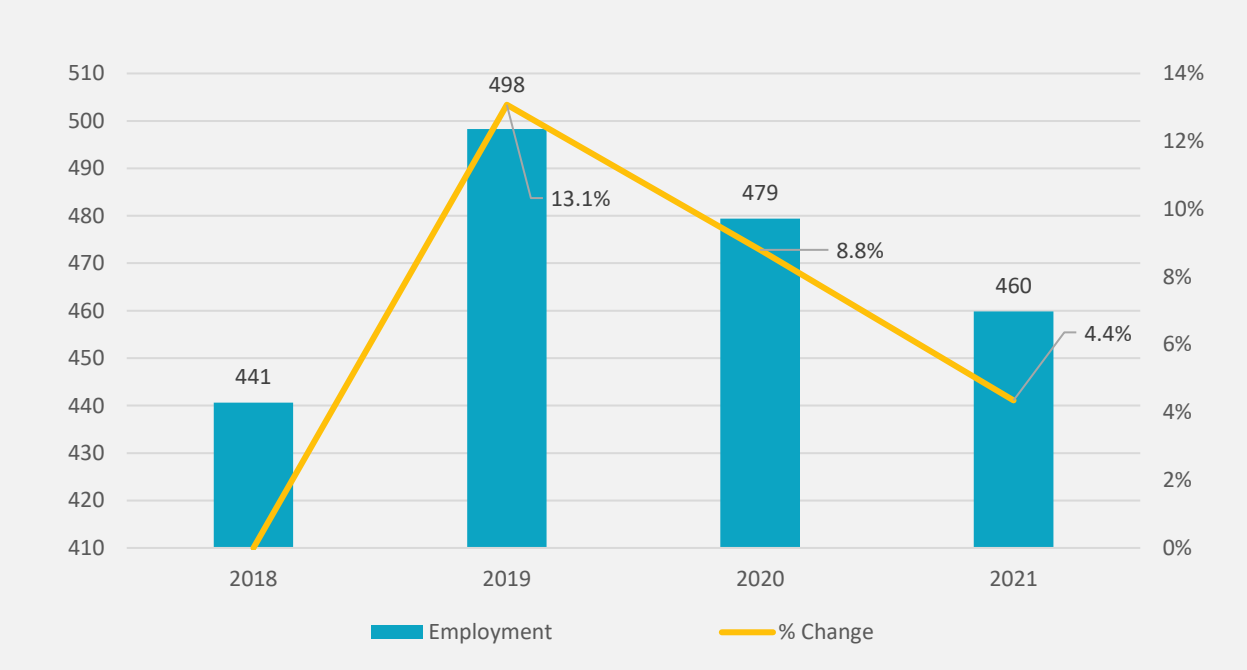


Table 9. Overall Employment by Age Range (2021)[47]

Age Group	14-24	25-34	35-44	45-54	55-64	65+
Employment (%)	6%	28%	29%	19%	13%	5%

[46] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2018-2021).
[47] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2021).

Residential Construction

The residential construction workforce in the County, encompassing New Single Family Home Construction, New Multi-Family Home Construction, and New Housing For-Sale Builders, has experienced steady growth in recent years, with a notable increase of 11.5 percent since 2018 (Figure 24).

Although the industry has demonstrated resilience in employment in 2021, it is important to highlight that over one-quarter of the residential construction workforce is over the age of 55. Additionally, nearly one in 10 workers is aged 65 or older, indicating that a significant share of workers is nearing retirement age and will likely soon exit the workforce (Table 10).

If SLO County seeks to expand its housing stock, it must cultivate a new generation of workers capable of assuming the duties and responsibilities of retirees.

Figure 24. Residential Construction Overall Employment (Cumulative % Change, 2018-2021)[48]

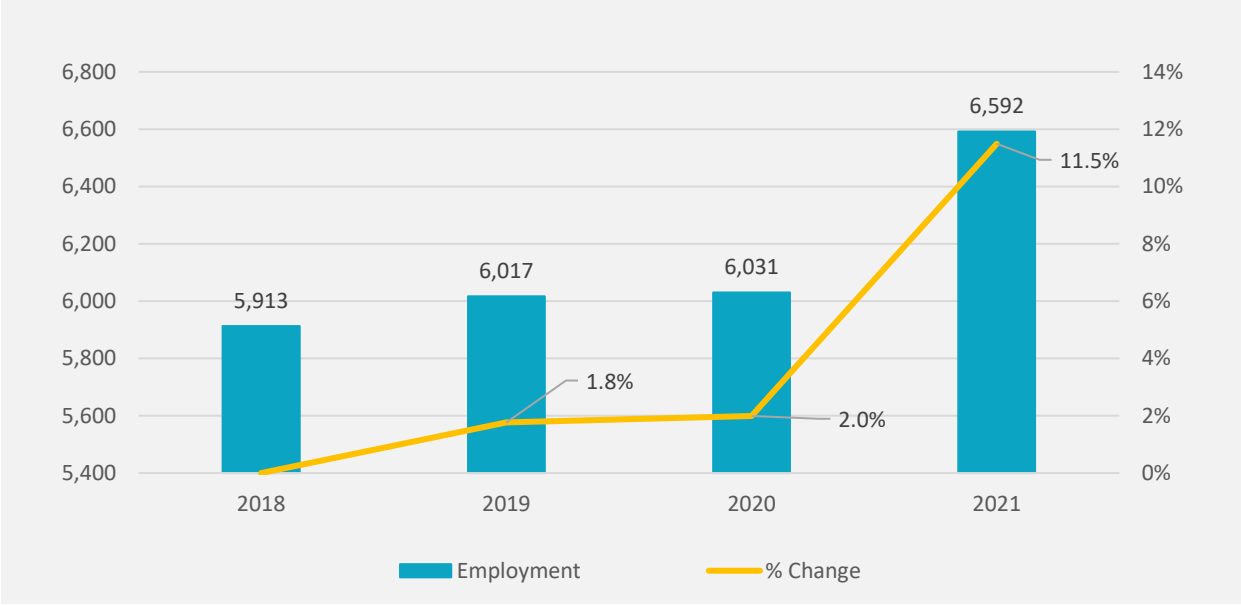


Table 10. Overall Employment by Age Range (2021)[49]

Age Group	14-24	25-34	35-44	45-54	55-64	65+
Employment (%)	8%	19%	28%	20%	17%	9%

[48] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2018-2021).
[49] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2021).

Transportation

San Luis Obispo County's transportation workforce, consisting of Highway, Street, and Bridge Construction, as well as Other Heavy and Civil Engineering Construction jobs, has successfully recovered from previous employment losses during 2019 and 2020. As a result, the sector's job changes have remained relatively stable when comparing 2018 to 2021 (Figure 25).

Another positive aspect is the transportation workforce in San Luis Obispo County skews younger, with less than one-quarter of its workers aged 55 or older (Table 11). Although this means a retirement wave may be further out, ensuring that the recent spur in transportation investments has an adequate workforce is essential.

Figure 25. Transportation Workforce Overall Employment (Cumulative % Change, 2018-2021)[50]

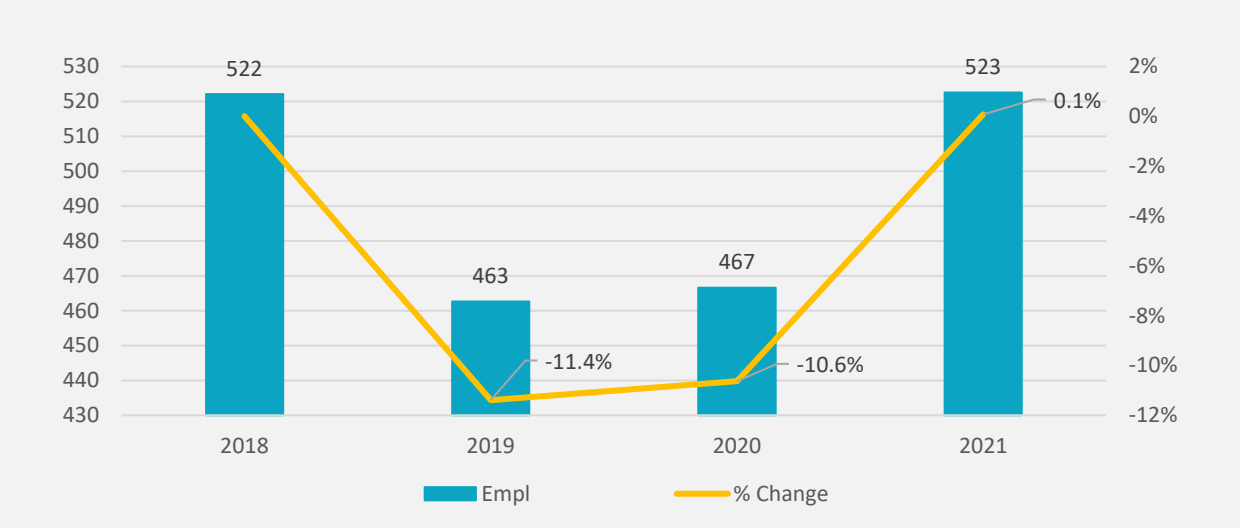


Table 11. Overall Employment by Age Range (2021)[51]

Age Group	14-24	25-34	35-44	45-54	55-64	65+
Employment (%)	6%	20%	31%	20%	17%	6%

Finally, in considering potential investments in the county's infrastructure workforce, it is recommended that the county consider implementing additional measures to ensure that residents are prioritized in the hiring processes for local infrastructure projects, thereby maximizing the potential economic benefits of investments within the county. This issue is explored in greater depth in an accompanying study prepared by BW Research for the WDBSLO, the Local Hiring Initiatives in San Luis Obispo County report.

[50] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2018-2021).
[51] JobsEQ Q4 2021. Bureau of Labor Statistics. Quarterly Census of Employment and Wages (2018-2021).

Infrastructure Workforce Training Inventory

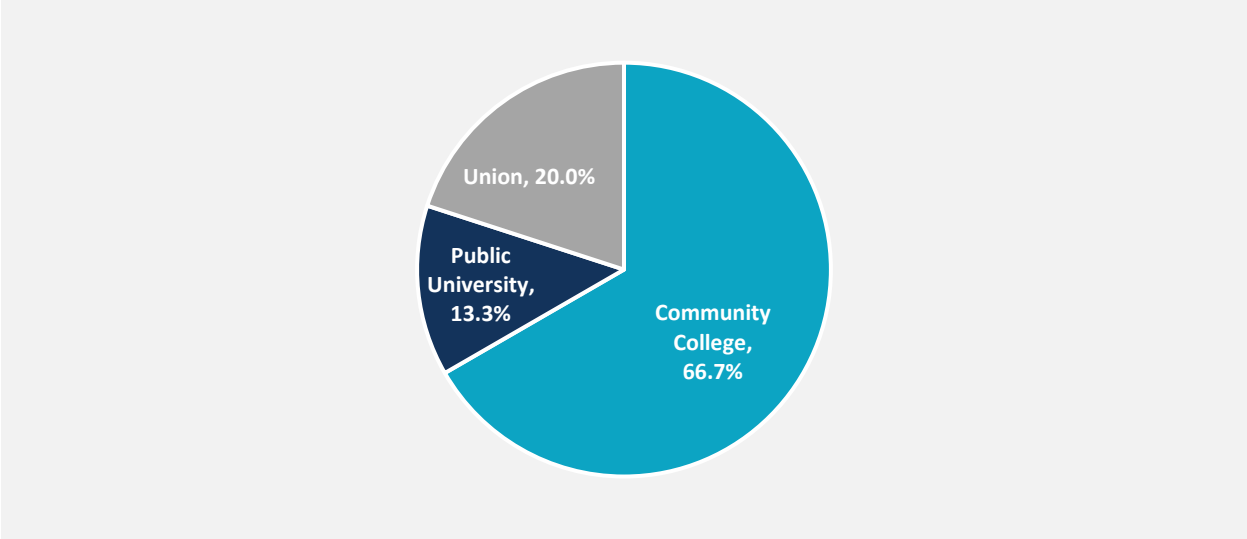
San Luis Obispo County is actively expanding its infrastructure projects, as evident from its Five-Year Capital Improvement Plan and other planned investments across the county. While assessing the current workforce is valuable for identifying potential bottlenecks in the pipeline, it is equally important to evaluate the county's training landscape to determine its capacity to meet the anticipated increase in infrastructure jobs in the future.

Infrastructure-related jobs, which often do not require a four-year degree, provide pathways to rewarding career opportunities. The training programs summarized in this section and listed in **Appendix C: Infrastructure Workforce Training Inventory** serve as entry points to various careers in the field. However, it is crucial for SLO County to continue developing training opportunities in collaboration with community colleges, vocational and technical high schools, public universities, and union training centers. This ensures the availability of a skilled workforce capable of completing infrastructure-related projects while offering well-paying career prospects to the 56 percent of San Luis Obispo County residents without a four-year college degree.

Cuesta College accounts for the 67 percent of the available vocational training programs relevant to infrastructure and residential construction in San Luis Obispo County, while local unions account for 20 percent and Cal Poly accounts for 13 percent. These institutions are recognized by California's eligible training provider list and the California Department of Industrial Relations' list of apprenticeships.

Apprenticeships constitute 20 percent of the 15 available programs countywide. These apprenticeships are exclusively provided by local union chapters, offering on-the-job training with fair compensation. It is expected that apprentices will secure full-time positions upon completion of their training. Although private companies may offer training to their apprentices, there are no resources available to track them, which limits the breadth of the training inventory provided in **Appendix C: Infrastructure Workforce Training Inventory**.

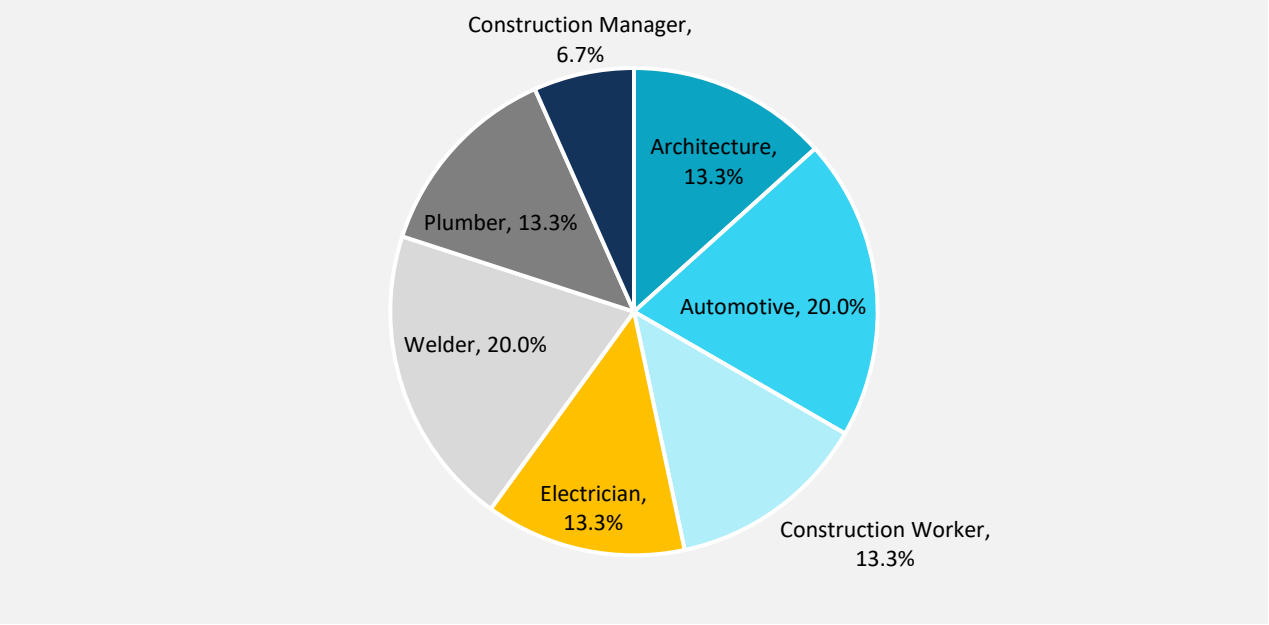
Figure 26. Training Provider Type for Infrastructure Related Work



Training programs offered across San Luis Obispo County cater to a wide range of occupations. Among the fifteen available programs, the most common categories were automotive (20 percent), welding (20 percent), electrical (13 percent), plumbing (13 percent), construction (13 percent), and architecture (13 percent). It is important to note that private contractors often offer their own apprenticeships and training programs, but these apprenticeships are not typically listed as eligible training provider programs. Therefore, it is important for SLO

County to explore the future demand and supply of workers in infrastructure and housing programs to assess whether training providers should expand their capacity in the coming years.

Figure 27. Building Trades Training Resources by Occupational Focus



Of the fifteen training programs available, nine lead to certificates (60 percent) that are provided by either Cuesta College or by local union chapters. These certificates enable trainees to enter or advance within in building trades career. Additionally, four programs lead to an associate degree (27 percent) in automotive, architecture, or construction trades from Cuesta College, and two result in a bachelor's degree (13 percent) from Cal Poly State University, specifically in construction management or architecture engineering.

Table 12. Training Resources by Educational Outcome

Degree Outcome	Number of Programs	Percent
Bachelor's Degree	2	13%
Associate Degree	4	27%
Certificate	9	60%

Conclusion

As summarized in this report, SLO County is a vibrant economy characterized by a prominent tourism industry. Agriculture products are also an important part of the economy. Cal Poly is an educational magnet for the area and plays a crucial role in supporting the development of the county's workforce.[52]

While the rate of educational attainment of the county is high relative to the rest of the state, the county remains a net exporter of jobs, particularly for higher-paying jobs in management, business, science, and arts occupations. The county's workforce is dominated by lower-paying jobs, and the county has a higher share of lower-paying jobs than the state average, indicating that the county has had trouble attracting and retaining talent and higher skill levels. High housing costs have exacerbated difficulties in local hiring, as approximately one-third of county residents reported spending 35 percent or more of their income on housing.

The county's share of older residents (65 years and over) is higher than the statewide average, and population growth has recently been driven primarily by an increase in the size of the county's Millennial cohort, which includes students of Cal Poly. Thus, it is important that the county invests in efforts to develop career pathways for entry-level employees to help transition them into jobs that will command higher wages. The county should also partner with local higher learning institutions and local labor unions to ensure that upskilling and reskilling programs are available to meet the needs of workers in industries that are expected to be significantly impacted by technological change in the years to come.

Additionally, it is important to consider the potential impacts of higher-paying work from home jobs in the county. While some remote jobs have partially or fully returned to in-person work following the COVID-19 pandemic, others are likely to become fully remote. Assessing how such jobs will be tracked and measured will help the county measure the potential economic impacts associated with remote work. This information, in turn, will inform county investments in infrastructure needed to support remote work, such as investments in the county's airport and investments in the county's digital infrastructure.

Finally, a significant wave of federal and local spending in local infrastructure projects is expected to boost demand for the county's infrastructure workforce. These investments are expected to generate rewarding career opportunities in a variety of sectors, particularly if supported by local hiring programs.

Measures that encourage infrastructure project owners and developers to prioritize local hiring maximize economic benefits to the county. As documented in the Local Hiring Initiatives in San Luis Obispo County study concurrently prepared by BW Research, for every 100 additional Construction workers that live within SLO County, an additional 49 jobs are created and sustained through supply chain demand and induced effects, generating approximately $11.4 million in labor income and $525,000 in incremental tax revenues for the county.

Thus, there are numerous opportunities to promote the economic growth and well-being of individual residents and local businesses of SLO County. Targeted policy efforts to support the current and potential workforce, the business ecosystem, and infrastructure will help the county meet the challenges associated with shifting demographics and evolving business climates in a post-pandemic world.

[52] https://www.calpoly.edu/about/facts-and-figures

Appendix A: Regional Definition

City	Zip	Location
Los Osos	93402	Coastal
Los Osos	93412	Coastal
Avila Beach	93424	Coastal
Cambria	93428	Coastal
Cayucos	93430	Coastal
Cambria	93435	Coastal
Morro Bay	93442	Coastal
Morro Bay	93443	Coastal
San Simeon	93452	Coastal
Atascadero	93422	North County
Atascadero	93423	North County
Creston	93432	North County
Paso Robles	93446	North County
Paso Robles	93447	North County
San Miguel	93451	North County
Pozo	93453	North County
Shandon	93461	North County
Templeton	93465	North County
San Luis Obispo	93401	SLO
San Luis Obispo	93403	SLO
San Luis Obispo	93405	SLO
San Luis Obispo	93406	SLO
San Luis Obispo	93407	SLO
San Luis Obispo	93408	SLO
San Luis Obispo	93409	SLO
San Luis Obispo	93410	SLO
Arroyo Grande	93420	South County
Arroyo Grande	93421	South County
Grover Beach	93433	South County
Nipomo	93444	South County
Oceano	93445	South County
Pismo Beach	93448	South County
Pismo Beach	93449	South County
Oceano	93475	South County
Grover Beach	93483	South County

Appendix B: Cuesta College Pathways to Higher-Earning Jobs

Program Name	**Industry Cluster**	Program Type	**Educational Outcome**	Median Earnings
Mechanized Agriculture	Agriculture & Food	Agricultural Services	Certificate	$52,945
Equipment Technician	Agriculture & Food	Agricultural Services	Certificate	$50,807
Construction Technology	Building & Design	Construction Services	Associates	$67,940
Architectural Technology	Building & Design	Construction Services	Associates	$58,159
Electrical Technology	Building & Design	Construction Services	Associates	$57,504
Electronics & State Electrician	Building & Design	Construction Services	Certificate	$47,720
Welding Technology	Building & Design	Construction Services	Associates	$47,091
Engineering	Building & Design	Engineering	Associates	$61,961
Registered Nursing	Healthcare	Medical Field	Associates/Certificate	$91,653
Licensed Vocational Nurse	Healthcare	Medical Field	Associates/Certificate	$49,950
Cloud Computing	Information, Communications & Technology	Computer Sciences	Certificate	$55,990
Computer Science	Information, Communications & Technology	Computer Sciences	Associates	$52,758
Geographic Information Systems (GIS)	Information, Communications & Technology	Computer Sciences	Certificate	$49,026
Maintenance & Light Repair Technician	Other Services	Automotive Services	Certificate	$46,420
Aviation Mechanic	Tourism, Hospitality, Recreation, & Other	Aviation Services	Certificate	$55,763

Appendix C: Infrastructure Workforce Training Inventory

Organization	Provider Type	Program Name	Apprentice-ship? (Y/N)	Occupation	Training Focus	Educational Outcome
Cuesta College	Community College	Advanced Engine Performance Technician A.S.	N	Automotive Technician	Automotive	Associate Degree
Cuesta College	Community College	Architectural Technology A.S.	N	Architecture	Construction	Associate Degree
Cuesta College	Community College	Automotive Technician A.S.	N	Automotive Technician	Automotive	Associate Degree
Cuesta College	Community College	Construction Technology C.A.	N	Construction Worker	Construction	Certificate
Cuesta College	Community College	Construction Technology A.S.	N	Construction Worker	Construction	Associate Degree
Cuesta College	Community College	Electronics and State Electrician C.A.	N	Electrician	Construction	Certificate
Cuesta College	Community College	Engine Performance Specialist	N	Automotive Technician	Automotive	Certificate
Cuesta College	Community College	Welding Technology C.A.	N	Welder	Manufacturing	Certificate
Cuesta College	Community College	Welding Technology Pipe C.S.	N	Welder	Manufacturing	Certificate
Cuesta College	Community College	Welding Technology Structural C.S.	N	Welder	Manufacturing	Certificate
San Luis Obispo Plumbing JAC	Union	Plumbing Apprenticeship	Y	Plumber	Construction	Certificate
IBEW Local 639	Union	Electrician Apprenticeship	Y	Electrician	Construction	Certificate
United Association	Union	Plumbing Apprenticeship	Y	Plumber	Construction	Certificate
Cal Poly State University	Public University	Construction Management B.S.	N	Construction Manager	Construction	Bachelor's Degree
Cal Poly State University	Public University	Architectural Engineering B.S.	N	Architecture	Construction	Bachelor's Degree