



Executive Summary

As the novel coronavirus pandemic continues to disrupt global supply chains and business operations for a third consecutive year, it is important to measure how local wineries are faring in today's economic environment, and understand what future challenges and issues may lie ahead. There are positive signs that suggest that regional wineries have made significant strides to financially recover from the fallout of the pandemic, but rising business prices and labor shortages are prevalent. More changes to business operations are likely to come, but industry growth and interest are persisting throughout this latest phase of the pandemic.

Using survey data, secondary datasets and Geographic Information Systems (GIS) mapping software, we conducted an economic and workforce analysis of San Diego County wineries for 2021. Overall, we found that:

- Data from the California Department of Alcoholic Beverage Control shows that as of March 2022, 160
 active and planned wineries now call San Diego County home, a 6% year-over-year increase from 2021.
 This figure is nearly twice the total number of wineries in neighboring Riverside County (87).
- We estimate that in 2021, San Diego County wineries generated \$44.1 million in gross sales, a 19% increase over 2020 sales (\$37.1 million). To provide some basis of comparison, San Diego County distilleries generated an estimated \$19.2 million in revenue in 2021.
- Overall, 1,372 acres were harvested in the region, producing 3,073 tons of wine grapes with a production value of \$5.2 million. The per ton value of wine grapes in 2020 (\$1,694) is an all-time high in the county, underscoring the quality and demand for local grapes.
- The pandemic continues to disrupt employment and worker availability in the wine industry. Overall,
 we estimate there were 669 total industry jobs in 2021, a 7% year-over-year decline from 2020 (719.7).
- Nearly 1/3 (31%) of respondents indicated an excellent harvest quality for 2021, and 50% indicated a
 good harvest quality. These harvest indicators are some of the strongest we have seen since 2016.
- More than 1/3 (37%) of survey respondents indicated they are experiencing a worker shortage, while a slim majority indicated they have either no employees or issues with recruitment and retention (53%).
- Most wineries that had problems with employee recruitment and retention made major changes to their business operations. More than 6 out of 10 (63%) stated they or the owner had to personally take on more work roles and work longer hours, and 41% received help from friends, family and volunteers. Other top responses included having to ask staff to work longer hours (37%), spending more time and/or money training current staff (30%), and reducing operating hours (22%).

Industry Overview

As illustrated in Figure 1, wineries, satellite tasting rooms and urban wineries dot the region, which is known for its year-round temperate climate, ocean breezes and fertile soil that are ideal for wine grape growing. San Diego County wineries reside primarily within one of three American Viticultural Areas (AVAs) – Romana Valley, San Pasqual and South Coast. The South Coast AVA stretches from the US-Mexican border to Los Angeles County, and the San Pasqual Valley AVA is nestled in northern part of the region. Many wineries are concentrated in the Ramona Valley, which has been recognized as an AVA since 2006. Winegrower license data from the California Department of Alcoholic Beverage Control (ABC) shows that as of March 2022, 160 unique wineries now call San Diego County home, a 6% increase from the regional tally included in our February 2021 wine industry report. This figure is nearly twice the total number of active and planned wineries in neighboring Riverside County (87).¹

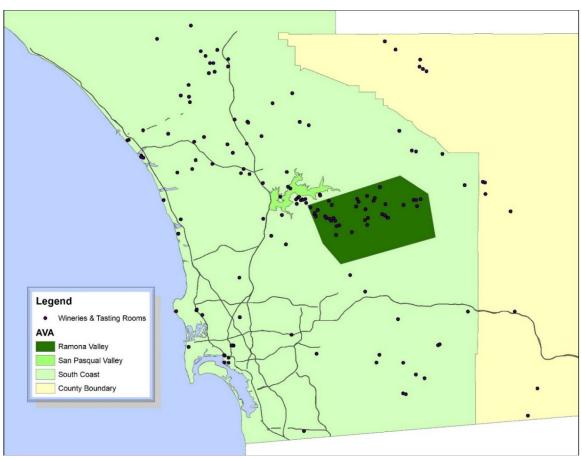


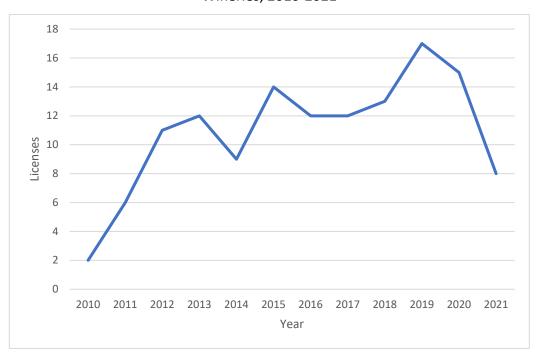
Figure 1: Wineries and Satellite Tasting Rooms in San Diego County, March 2022

¹ To get an accurate count of operating wineries and planned wineries, we conducted an exhaustive review of the Type 2 licenses in San Diego County, verifying every license holder and their current operating status, and removing all duplicate licenses, non-wineries and inactive wineries from the list.

Source: California Department of Alcoholic Beverage Control

Since reaching a peak in 2019, the number of newly issued Type 2 winegrower licenses in San Diego County has taken a downturn, likely in part due to the impact of the challenging operating and economic conditions for small business owners through the pandemic (see Chart 1). Still, interest and growth has been steady in the region, particularly since the beginning of the last decade, when a landmark county winery ordinance was passed in 2010 and later amended in 2016 that significantly opened opportunity and investment into the sector.

Chart 1: First Year of Issuance for Type 2 Winegrower Licenses for Verified Operating or Planned
Wineries, 2010-2021



Source: California Department of Alcoholic Beverage Control

2022 Survey

Since our last survey, we were particularly interested to learn about how San Diego County wineries were faring through the novel coronavirus pandemic, fluctuating government restrictions, and changes in the marketplace. To explore these questions and more, we partnered with the San Diego County Vintners Association (SDCVA) to electronically distribute an 18-question survey to its members. We also distributed the survey directly to non-member winery owners in the county, using contact information found on the Internet and in local business license records. We distributed our survey instrument electronically over multiple rounds in early-to-mid February 2022. Follow-up calls were coordinated with SDCVA to ensure that larger wineries participated in the questionnaire. Overall, we received 43 responses, generating a 27% response rate from operating wineries.

Sales

We asked survey respondents to estimate their total gross sales revenue for 2021. We compiled these responses and supplemented non-participating wineries with data from prior surveys, and in limited cases with company sales data from Dun & Bradstreet, a best-in-class proprietary business record database. Overall, we estimate that in 2021, San Diego County wineries generated \$44,172,206 in gross sales, a 19% increase over 2020 sales (\$37,100,211). This figure is in range of pre-pandemic sales we have calculated (see Table 1). In particular, mid-sized and larger wineries generated strong revenue figures in 2021. Conversely, some of the smallest wineries in the region experienced flat or declining year-over-year sales figures. To provide some basis of comparison, San Diego County distilleries generated an estimated \$19.2 in revenue in 2021.

Table 1: Estimated Gross Sales for San Diego County Wineries, 2018-2021

2018	2019	2020	2021
\$ 41,059,126	\$ 46,236,060	\$ 37,100,211	\$ 44,172,206

Bottle sales continue to be brisk in the region; when asked what percentage of 2021 were bottle sales, most respondents indicated they were 80% or more. This figure is higher than the average of responses we received in 2020, which ranged closer to 70%-75%.

² Source: Dunn & Bradstreet Business Database.

Harvest

Data from the San Diego County Agriculture, Weights and Measures Department indicates the local wine grape harvest in 2020 was similar to recent harvest years (see Table 2). Overall, 1,372 acres were harvested in the region, producing 3,073 tons of wine grapes with a production value of \$5.2 million. The per ton value of wine grapes in 2020 (\$1,694) is an all-time high in the county, underscoring the quality and demand for local grapes.

Table 2: San Diego County Wine Grape Harvest, 2017-2020

Year	Acres	Tons	Production	Value/Ton
	Harvested	Produced	Value	
2017	1,210	2,783	\$3,854,455	\$1,385
2018	1,642	3,284	\$4,591,032	\$1,398
2019	1,511	3,596	\$5,580,300	\$1,552
2020	1,372	3,073	\$5,206,091	\$1,694

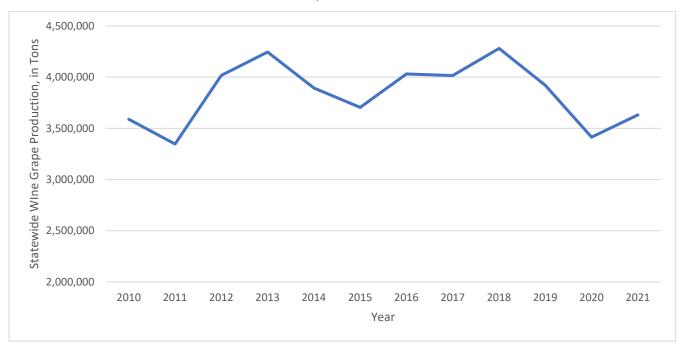
While most of the year-over-year harvest figures declined in San Diego County, we found a similar phenomenon occurred across the state, and in particular with our benchmark regions (see Table 3). Indeed, 2020 saw the lowest wine grape production in the state since 2011 (see Chart 2). As we noted in our 2021 SDCVA Wine Report, in 2020, "(wine grape) prices and demand were down due to purchaser concerns of smoke exposure and damage; a market correction following an oversupply of bulk wine grapes; and pandemic-related restaurant closures."

³

Table 3: 2020 Tons of Wine Grapes Harvested per Harvested Acre, and Value of Harvest Wine Grapes per Ton Harvested, by County

County	2019	2019	2020	2020
	Tons/Harvested	Dollar	Tons/Harvested	Dollar
	Acre	Value/Ton	Acre	Value/Ton
Napa	3.43	\$5,872	2.2	\$4,646
San Luis Obispo	3.38	\$1,699	2.88	\$1,637
Santa Barbara	3.36	\$2,114	3.0	\$2,192
Santa Clara	3.4	\$1,997	3.5	\$1,983
Riverside	3.8	\$1,623	6.72	\$1,625
San Diego	2.38	\$1,552	2.24	\$1,694

Chart 2: Statewide Wine Grape Production, California, 2010-2021



Source: National Agricultural Statistics Service

Our survey revealed that respondents generally gave the 2021 harvest positive remarks (see Chart 3). When asked to rate the harvest yield, nearly 3 out of 4 (72%) respondents indicated an average yield that year, the highest number to do so since the start of our industry survey series. Less than 1 out of 10 (8%) indicated that 2021 produced an above average harvest yield. It would be worthwhile to follow-up on this data, to learn whether statewide labor shortages for machine operators, tractor drivers and field work affected the harvest yield.

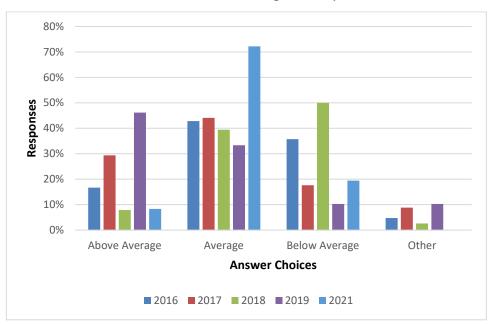


Chart 3: Harvest Yield, San Diego County, 2016-2021

The 2021 harvest quality generated stronger feedback. By all accounts, the 2021 harvest season in California was long and moderate, with excellent growing weather and few extreme heat events reported overall. The Wine Institute at UC Davis remarked that the 2021 state harvest was "outstanding," and the 2021 vintage is predicted to "be one of the best in recent memory." The 2021 Wine Institute Harvest Report gave a detailed description of the San Diego County regional harvest:

The San Diego County 2021 crop was lighter than normal, but with the potential for great quality. Weather during the growing season was drier than average, which led growers to begin irrigating earlier in the season and resulted in less pressure from powdery mildew. Bud break and flowering occurred as normal, with few wind or heat episodes. Harvest began neither early nor late. San Diego vintners engaged in less cluster drop this year while maintaining the same yields. Grapes are showing good color and lower pH levels, along with highly

developed color, higher Brix levels and great quality. White varieties ripened quickly, while reds matured on a more normal curve.⁴

Indeed, nearly 1/3 (31%) of respondents indicated an excellent harvest quality for 2021, and 50% indicated a good harvest quality (see Chart 4). These harvest indicators are some of the strongest we have received since the 2016 growing season.

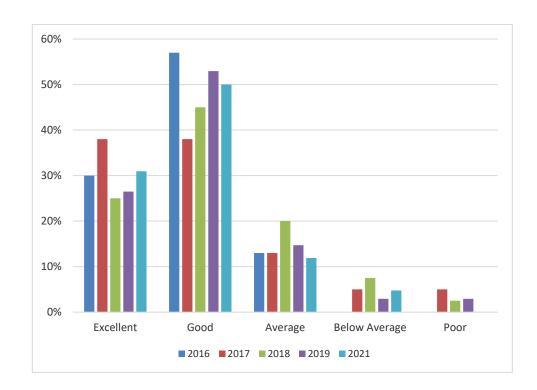


Chart 4: Harvest Quality, San Diego County, 2016-2021

As in prior years, we asked respondents to identify the wine grape varietals grown, cultivated and/or sold in 2021. Overall, our survey showed there were 39 unique varietals grown in the region, which falls somewhat out of the range of prior survey tallies (45-62), however we would note that our survey question type changed from prior years, from an open-ended question to a multiple-choice question, so this likely had an effect on total responses provided. The top three varietals retain their rankings from prior years – Cabernet Sauvignon (1), Syrah (2) and Sangiovese (3), with some changes to the rest of the rankings, with Grenache and Merlot now tied for fourth, and Chardonnay and Petite Syrah tied for fifth. This is the first time that a white

⁴ Source: California Wine 2021 Harvest Report. Wine Institute. https://28rbcq2h1bmh1vlw303uo1et-wpengine.netdna-ssl.com/wp-content/uploads/2021/11/Wine_Institute_Harvest_Report_November_2021.pdf.

wine varietal has appeared in our top five regional varietals.

Workforce, Wages & Training

Responses to our industry workforce-related questions suggest that the novel coronavirus pandemic continues to disrupt employment and worker availability in the industry. Overall, we estimate there were 669 total industry jobs in 2021, a 7% year-over-year decline from 2020 (719.7 jobs). With the exception of hospitality and tasting rooms jobs, all industry occupations are slightly down in year-over-year regional employment figures (see Chart 5).⁵ Labor shortages are being seen nationwide, particularly with agriculture; a 2021 survey by Purdue University found that 2/3rds (66%) of the agricultural industry is experiencing "some" or "a lot of difficulty" hiring adequate labor, compared to just 30% in 2020.⁶ A handful of winery closures in 2021 have also likely contributed to these year-over-year figures.

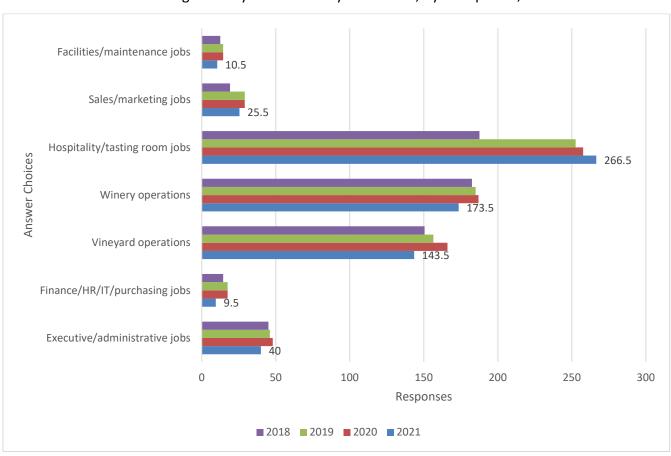


Chart 5: San Diego County Wine Industry Workforce, by Occupation, 2018-2021

⁵ We would note that while tasting room jobs have risen, this was largely due to hires at new wineries and satellite tasting rooms. Most wineries indicated year-over-year hospitality and tasting room jobs were flat or declined.

⁶ Vick, Meghan. Farm optimism fades as producers fear rising input costs, labor shortages. ProFarmer. July 6, 2021. https://www.profarmer.com/news/agriculture-news/farm-optimism-fades-producers-fear-rising-input-costs-labor-shortages

Overall, data from the U.S. Bureau of Labor Statistics suggests that industry wages are rising in San Diego County, which is similar to our benchmark wine growing regions. The average annual industry wage for San Diego County was \$47,684 in the 3rd Quarter of 2021. The evidence suggests that higher competitive wages are in part being driven by the labor shortages in the region, as well as the expansion of some of the mid-sized and larger wineries that call San Diego County home.

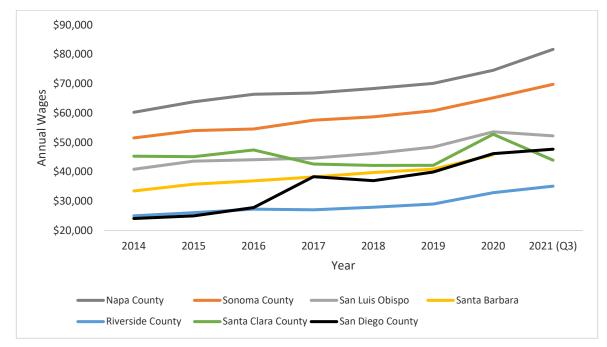


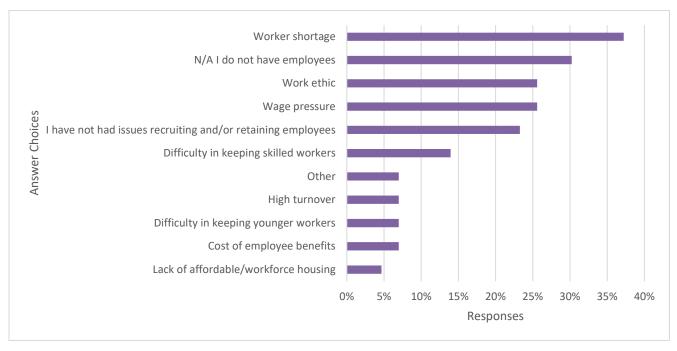
Chart 6: Average Annual Industry Wages, by County, 2014-2021 (Q1)

Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics, 2014-Q3 2021

Coronavirus Pandemic & Business Operations

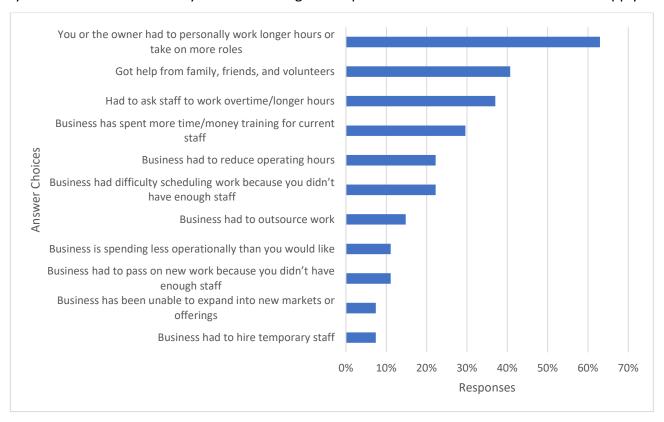
In our investigation for 2021, we were interested in exploring the continued impact of the novel coronavirus pandemic on business operations, staffing and the industry supply chain. We first began by looking at how the pandemic has affected recruiting and retaining employees (see Chart 7). More than 1/3 (37%) of survey respondents indicated they are experiencing a worker shortage, while a slim majority indicated they have either not had issues with recruitment and retention (23%) or did not have employees (30%). Roughly a quarter of respondents said they have had issues with work ethic (26%) or wage pressure (26%).

Chart 7: Survey Responses to "What issues, if any, have you faced in recruiting and/or retaining employees since the start of the coronavirus pandemic? Please select all that apply:"



Of those that did indicate they had problems with employee recruitment and retention, most respondents indicated major changes to their business operations (see Chart 8). More than 6 out of 10 (63%) stated they or the owner had to personally take on more work roles and work longer hours, and 41% received help from friends, family and volunteers. Other top responses included having to ask staff to work longer hours (37%), spending more time and/or money training current staff (30%), and reducing operating hours (22%).

Chart 8: Survey Responses to "If you have had difficulty recruiting and/or retaining employees, has your business had to do any of the following to compensate for that? Please select all that apply:"



Much has been reported about the global supply chain issues and product shortages through the pandemic. The unavailability of manufacturing supplies is not just limited to large multinational corporations and large employers; as noted in the Silicon Valley Bank's (SVB) 2021 Wine Industry Report, "smaller wineries have less negotiating power and have been suffering production holdups. Their frequently cited issues include the inability to source bottling supplies, cardboard, equipment and labels. While a smaller number said they had issues with barrels, that problem would probably have been more widespread were it not for leftover barrels from the small 2020 vintage. Only 7% of survey respondents said they had no problems [with supply chain issues]."

We compared the survey responses from the Silicon Valley Bank's survey to nationwide wineries on supply chain issues (see Chart 9) and found that San Diego wineries had less difficulty in securing industry supplies last year than wineries nationwide. This may be due to a variety of factors, including winery size, supply contracts and product sourcing channels. Overall, a large majority (64%) of survey respondents believe

⁷ McMillan, Rob. State of the US Wine Industry 2022. Silicon Valley Bank. Pp. 47. https://www.svb.com/globalassets/trendsandinsights/reports/wine/svb-state-of-the-wine-industry-report-2022.pdf

their supply chain issues will carry into 2023 or beyond (see Table 4). This will be an issue we will continue to monitor in future surveys.

Chart 9: Survey Responses to "Which supplies have been difficult to source in 2021? Please select all that apply:"

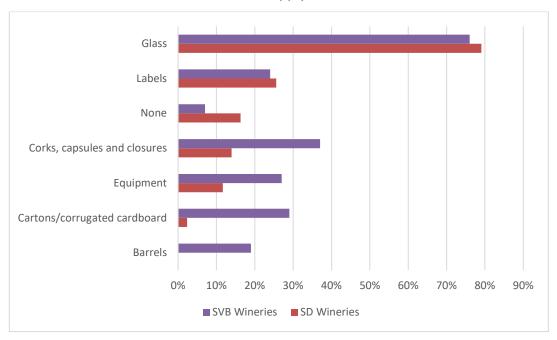


Table 4: Survey Responses to "In communicating with suppliers for production components (bottles, closures, machinery, parts, etc.) do you expect supply chain issues to carry into this year and beyond?"

Answer Choices	Responses
We don't have any issues with getting supplies	7.7%
We believe the supply chain issues will correct themselves in 2022	28.2%
We believe the supply chain issues will carry into 2023, but will be resolved by the first	38.5%
half of the year	
We believe the supply chain issues will carry into 2023, but will be resolved by the second half of the year	23.1%
We believe the supply chain will likely carry into 2024 or beyond	2.6%

Moving next to health and safety precautions (see Table 5), most respondents indicated they expanded or added outdoor seating for customers (69% and 33%, respectively) for wine tasting and meals. Nearly half (44%) stated they reduced the number of indoor seats available to patrons. Few are requiring reservations for seating (17%) or seating at the bar (8%). These responses suggest that local wineries have been reasonably accommodating for customers and their concerns for health and safety.

Table 5: Survey Responses to "Which of the following precautions regarding tasting room reservations, seating and ordering have you established due to the coronavirus pandemic? Please select all that apply."

Answer Choices	Responses
More outdoor seating areas are available for wine tasting and/or to eat food/meals	69.4%
Outdoor seating areas, which were not available prior to the pandemic, are now available	33.3%
for wine tasting and/or to eat food/meals	
Fewer tables are in the tasting room to reduce the number of patrons seated for a wine	44.4%
tasting and/or to eat food/meals	
Seating by reservation only	16.7%
Availability of disposable/single-use glassware	13.9%
Availability of disposable/single-use silverware	2.8%
Customers must wait outdoors if they are waiting for a table	16.7%
Paper menus/single-use menus	33.3%
Contactless/cashless payment options	30.6%
Availability of food/drink menus on your phone	19.4%
Customers are the tasting bar must have a seat	8.3%
Availability to pre-order tastings, bottles, etc. and pay online before visiting the tasting	11.1%
room	

We also found evidence that suggests that rising prices are impacting local wineries; more than four out of ten (44%) respondents have experience large price increases for business-related goods and services since the start of the pandemic (Chart 10). Only 10% of respondents said they experienced little to no change in prices. These higher prices have likely caused local wineries, like other small businesses in the region, to consider raising their prices this year; roughly six out of ten respondents are considering "small" or "moderate" increases on some of their retail wine prices in 2022 (see Table 6). Compared to responses from the SVB Winery Survey, somewhat more local wineries are considering moderate price increases than wineries nationwide (33% vs 25%, respectively), but overall, more wineries nationwide are considering price increases than regional wineries (72% vs 60%, respectively).

Chart 10: Survey Responses to "Comparing now to what was normal before March 13, 2020, how have the prices your business pays for goods and services changed?"

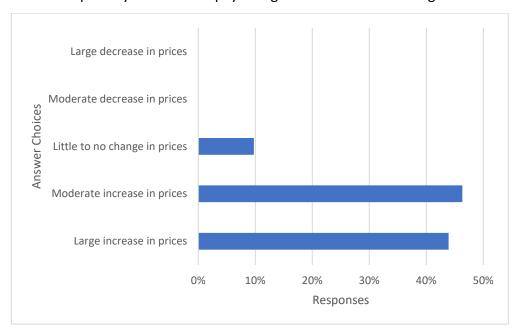


Table 6: Survey Responses to "Select the statement that most closely matches your belief about the expected net retail price changes for your wines in 2022."

Answer Choices	SD Wineries	SVB
	Responses	Wineries
		Responses
Strong decrease: I need to take strong price reductions on most of my wines	4.6%	0%
Moderate decrease: I need to take modest price reductions on most of my	2.3%	1%
wines		
Small decrease: I need to take some small price reductions on select SKUs	4.6%	2%
Hold prices: I can pretty much hold my shelf price on average	27.9%	25%
Small increase: I can take some small price increases on select SKUs	27.9%	43%
Moderate increase: I can take modest price increases on most of my wines	32.5%	25%
Strong increase: I will be able to take strong price increases on most of my	0.0%	4%
wines		

Lastly, we included two survey questions to explore perceptions and plans on how business operations will change over 2022. For comparison, we included response data from the U.S. Census Bureau's Small Business Pulse Survey – specifically, we compared our survey responses to those of all California small businesses in the Pulse Survey sample, which were collected across the same time period as our survey.

Compared to the California business responses, San Diego wineries are thinking they need to take significantly more steps in 2022 to improve their business operations (see Chart 11). More than half (53%) of our respondents indicated they plan to increase business marketing and sales, and roughly a third plan to hire new workers, identify new supply chain options, and develop online sales or websites (35%, 33%, and 33%, respectively). Few (15%) think that no actions are required to either improve or cut back business operations, compared to more than a third (36%) of California respondents in the Pulse survey. It may be that due to geography, business size, or the type of business sector, wineries have more need to make changes to their business operations this year.

When asked, "In your opinion, how much time do you think will pass before your business returns to its normal level of operations?", our respondents indicated a shorter time horizon than California businesses overall (see Chart 12). Less than a quarter (24%) of our respondents indicated that it will take longer than six months for business operations to return to normal, compared to 35% for all California business owners.

Chart 11: Survey Responses to "In the next 6 months, do you think this business will need to do any of the following? Please select all that apply:"

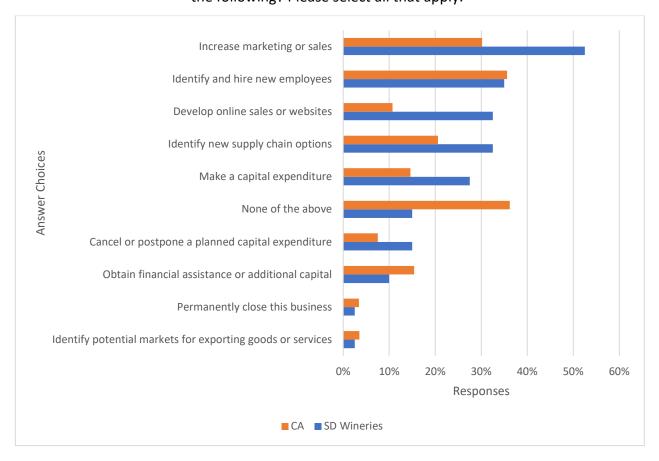
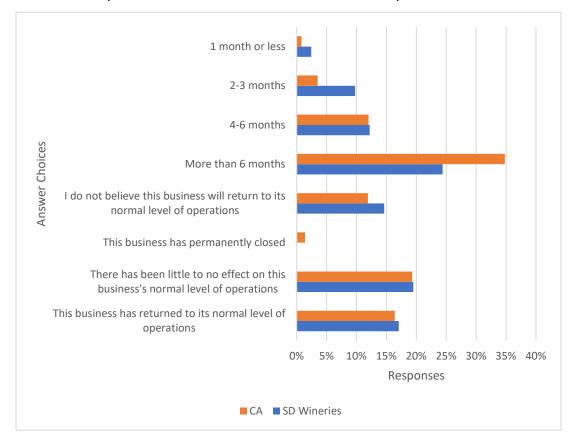


Chart 12: Survey Responses to "In your opinion, how much time do you think will pass before your business returns to its normal level of operations?"



About The Policycraft Institute

Established in 2019, the Policycraft Institute is an independent public policy research organization based in Carlsbad, California.

About the Author

Vince Vasquez is an independent economic data analyst and executive director of the Policycraft Institute. Professionally, he has worked as a public policy researcher for more than fourteen years. He has authored more than forty policy papers on a range of economic and workforce issues, including craft brewing, small business districts, and the renewable energy sector. He has a Bachelor of Arts in Political Science from the University of California, San Diego, and is currently completing coursework at towards an Associates Degree in Viticulture and Enology at MiraCosta College.

