



The San Diego Business Journal

San Diego Business Confidence Index – Spring 2021

Created by Undergraduate Students from California State University, San Marcos
College of Business Administration
Senior Experience Program – Spring 2021

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The San Diego Brewers Guild (SDBG) played a critical role in our analysis of the craft beer

industry. Executive Director, Paige McWey Acers, graciously continued to partner with CSUSM's Senior Experience program to administer the Craft Beer Survey to SDBG members. We would also like to thank CSUSM Craft Brewing Industry Advisor, Todd Colburn, who helped us modify our questionnaire to include the most relevant questions to craft breweries.

A number of individuals at various Chambers of Commerce were incredibly supportive of our effort as well and agreed to distribute the General Business survey in their weekly newsletters and social media pages. These chambers include the cities of Carlsbad, Escondido, Fallbrook, Oceanside, San Marcos, Valley Center, and Vista. The San Diego Regional Chamber of Commerce, San Diego Economic Development Council, and the North San Diego Business Chamber of Commerce are also recognized for their generous support and distribution of our survey. The team would also like to give special thanks to Paige Vahle, who is the Marketing and Communications Director for CoBA at CSUSM. She was instrumental in our success and helped us distribute the General Business Survey to over 1,800 contacts of the university. Paige also organized the purchase of a new contact list for our Biotechnology survey, provided insight that helped improve the quality of our appeal letter, and helped us navigate the Qualtrics software platform.

The Tourism and Hospitality Survey received an increased number of responses this semester, which is mostly attributed to the supportive organizations that shared our survey with their network of businesses in the industry. The team would like to thank Managing Director, Julie Parent, from Hospitality Sales and Marketing Association International (HSMAI) San Diego Chapter for advertising our survey on several occasions. We also received support from the San Diego Hotel-Motel Association (SDHMA) and would like to recognize Executive

Director, Namara Mercer, for assisting with the distribution of our survey as well. We greatly appreciate the support from these organizations and urge future teams to build on these relationships.

Lastly, our team would like to thank various members of the bioscience community. This was the first year a Senior Experience team surveyed the biotechnology and medical device industries, and the establishment of a quality contact list would not have been possible without the professionals who offered their guidance. Dr. Albert Kern was especially helpful by providing several useful contacts to grow our network, and kindly allowed the team to use his name as a reference when reaching out to individuals in the community. The support from Dr. Moorthy Palanki was also key to our success. Dr. Palanki is the Biotechnology Program Director for the Computer, Science, Technology, Engineering, and Math (CSTEM) Department at CSUSM. He suggested we connect with him on LinkedIn to utilize his professional contacts for our survey. The individuals in Dr. Palanki's network made up the majority of our participants and we are greatly appreciative of his support. In addition to these individuals, we received support from organizations like BIOCOM, California Manufacturing Technology Consulting (CMTC), and the San Diego Workforce Partnership who all shared our survey on multiple occasions. Our deepest gratitude to you all.

Executive Summary

The Business Confidence Index report is a biannual study conducted by senior business students at California State University, San Marcos. The project is sponsored by the San Diego Business Journal and was founded in the fall semester of 2015 to gauge the outlook for future business operations in the local region. Four anonymous surveys were distributed to general businesses, craft breweries, biotechnology firms, and organizations in the tourism and hospitality industry. These questionnaires primarily focused on employee retention, revenues, and profits, which best help capture business confidence over the next six-month horizon. The surveys also asked about the COVID-19 pandemic and other industry-specific matters, but these questions were not used in the final calculation of indices. The additional questions were simply incorporated as secondary metrics to better understand the current climate of the businesses we surveyed.

Each semester Senior Experience teams work to improve the project by capturing a greater number of participants, refining the surveys, and exploring new industries. In previous years, the Aerospace and Defense industry was among those analyzed by students but was excluded from the Fall 2020 report due to a chronically low response rate. As a result, the biotechnology and medical device industries were added for the first time in Spring 2021. San Diego is one of the top biopharma clusters in the world, which creates a great opportunity for students pursuing this project. Since the field is so broad, we chose to specifically target companies that manufacture products rather than provide services. Unfortunately, our team struggled to gain a significant number of participants for this survey, but we are optimistic for greater success by future teams. The low response rate is likely attributed to the extra time it

took to learn the industry, acquire new contacts, and build connections within the bioscience community.

Our team also chose to modify the survey questions from the prior semester. After reading reports from previous years, we noticed a variety of trends; long and detailed surveys often suffered lower response rates, while brief, broad surveys failed to provide additional insight for specific industries. The Fall 2020 team distributed the same five question survey to all participants that covered employee retention, revenues, profits, and financial assistance utilized in response to the pandemic. Our team chose to modify the pandemic response questions and incorporate two to three additional industry specific questions for the Craft Beer, Tourism, and Biotechnology questionnaires. As our economy reopens, we felt it was more appropriate to examine changes to business strategy, adopted technologies, and the overall outlook for business returning to normal as our country transitions to a new phase.

The two previous Senior Experience teams faced many challenges with this project because of business closures, stay at home orders, and a decline in participation. However, our team noticed a spike in engagement and enthusiasm, which is reflected in the high confidence indices we calculated for Spring 2021. The General Business and Tourism Indices were the highest in the project's history at 80.96 and 90.87, respectively. This is a 15.15-point increase from Fall 2020 for General Business and a 40.87-point increase for Tourism and Hospitality. The Craft Beer Confidence Index remained above its historical average at 90.68, which is an increase of 27.63 points from Fall 2020, and the Biotechnology and Medical Device Index was calculated as 74.44. Unfortunately, we only received 15 responses for the Biotech Survey, so the derived index does not accurately reflect the industry as a whole. Despite this, we were able to

establish various connections throughout the bioscience community that can be utilized by future teams.

Background and Introduction

The Senior Experience program was founded 28 years ago at CSUSM to provide its upcoming graduates with a real-world business opportunity. The program allows students to utilize their foundational business knowledge to perform consultation work for organizations in the San Diego area. At the onset of the project, teams of five are paired with a faculty advisor and sponsor organization, which range from one-person startups to Fortune 100 companies. Students compile their research and findings into a comprehensive final report and provide a professional presentation to their sponsor at the end of the semester. The presentation and paper are deliverables that should address the main objectives of the team's project.

The Business Confidence Index is a biannual project sponsored by the San Diego Business Journal (SDBJ) that was founded in Fall 2015. The project is designed to gauge the outlook of future business operations in the local San Diego region through the administration of surveys that focus on employee retention, revenues, and profits. This data is quantified and analyzed using the Qualtrics software platform to provide valuable insight to the local business community. The team is responsible for reviewing, modifying, and redistributing these Confidence Index Surveys to targeted industries and general businesses throughout the county. Upon conclusion of data collection, students provide an overview of the local business climate in its current state. This information is converted into an easy-to-read dashboard that is published by the SDBJ, which illustrates how the business confidence has fluctuated over time in major San Diego industries. All Confidence Indices are measured on a 1– 100 scale. A score above 50 suggests positive confidence, a score of 50 suggests neutral (or net zero change), and a score below 50 suggests respondents are unconfident. A positive confidence score indicates a

positive outlook for the industry, while a negative confidence score indicates a negative outlook for the industry.

The first Senior Experience team to conduct this project developed a series of surveys and established a network for their distribution in Fall 2015. In Fall 2016, the team added the San Diego sports and active lifestyle industry to the project. They also utilized Qualtrics, a cloud-based software program, for the dissemination of future surveys. In Fall 2017, the tourism and hospitality industry was included. Throughout 2018, both teams in spring and fall continued the development of pre-existing indices. They also worked to solidify connections with various associations for wider survey distribution and increased visibility. More notably, the Fall 2018 team created a new survey for San Diego's aerospace and defense industry. By Spring 2020, the growth of contact lists across all industries was consistent. The teams continued to utilize the Qualtrics software to modify and redistribute surveys created in prior semesters. In Spring 2021, a new contact list was created for the biotechnology and medical devices industries to replace aerospace and defense. The team also worked to expand the contact lists for the Tourism and Hospitality, Craft Beer, and General Business Surveys, and made new connections with a variety of associations that helped facilitate wider distribution of the questionnaires.

COVID-19 Pandemic

The coronavirus pandemic has undoubtedly disrupted the global economy, reshaped our business landscape, and caused severe hardship for countless people around the world. All CSUSM campuses have been closed to non-essential personnel since March 2020, which presented a variety of challenges for the two previous Senior Experience teams. The Spring 2020 team had to transition to online learning in the middle of the semester, while the Fall 2020 team had to navigate the first ever virtual Senior Experience course. Furthermore, these teams attempted to survey businesses during a time of severe hardship, which unquestionably presented hurdles that would impact participation and the overall results of this project. Our team faced challenges as well but were better equipped to navigate the online environment after several semesters of adaptation.

At the onset of our project, San Diego was operating in the Purple Tier, which is the highest of the tier system and represents widespread infection with more than an average of seven new cases per day for every 100,000 residents (County, 2021). By the end of the semester the county shifted to the Orange Tier, which represents moderate infection with 1 to 3.9 average new cases per every 100,000 residents (County, 2021). As a result, various types of indoor businesses were authorized to reopen with added modifications to ensure public safety. This is mostly attributed to a successful vaccine rollout and the subsequent reduction in positivity rates across the nation.

Business owners are eager to return to normal operations and appear optimistic about the immediate future. This enthusiasm was reflected in the high confidence indices that were calculated for all surveys and the willingness of associations to share our survey with their

business constituents. Despite the lack of in-person engagement, our communication efforts were successful overall. The team primarily reached new and existing contacts via email, telephone, and LinkedIn. While many businesses, associations, and individuals were eager to support our project, response times occasionally stalled causing some delays in our timeline. While this can be expected for any of the aforementioned communication methods, we believe the lag in response time can also be attributed to the increased email/call volume for businesses operating in a virtual environment.

Limitations

Our team encountered some setbacks throughout the course of the project that ultimately affected our overall timeline. We struggled to gain responses for the Craft Beer and Biotechnology Surveys for the majority of their release, while we had greater success with Tourism and General Business Surveys early on. The Craft Beer Survey was exclusively sent to the San Diego Brewers Guild by Paige McWey Acres so any correspondence about the questionnaire had to be facilitated through her. She was also the only person who could send reminders, so we had to repeatedly reach out to Paige to increase our response rate. We received very few participants for the first three weeks, which ultimately led us to extend the survey timeline to enhance our final results. Most Craft Beer responses occurred in the final week of our data collection, so this effort proved to be beneficial. Furthermore, breweries around the county were preparing to reopen during this time, which may have contributed to the low participation levels throughout the course of our study.

This was the first semester the SDBJ project surveyed the biotechnology and medical device industries, which presented a few challenges. Dean Jim Hamerly provided academic and professional contacts in the bioscience community that helped us begin the contact acquisition process. Among these contacts was Dr. Albert Kern, who is an education consultant at CSUSM and very active in the bioscience community. Dr. Kern was exceptionally helpful and suggested several contacts that could facilitate our efforts. They included professionals from BIOCOM (the largest regional life science association in the world), the San Diego Workforce Partnership, and the San Diego Economic Development Council. Among these organizations, our team was able to reach Rick Fultz, the Vice President of BIOCOM, and Peter Callstrom, the CEO of the San

Diego Workforce Partnership. Both executives agreed to share our biotech social media flyer on their organization's LinkedIn pages to advertise our survey. These connections led us to Amanda Cheyney, who is the Business Advisor and Resource Connector for California Manufacturing Technology Consulting (CMTC). CMTC is a private non-profit consulting company for small and medium sized manufacturers in Southern California and has a large number of business clients in the medical device industry. Ms. Cheyney also shared our flyer on LinkedIn several times throughout the semester. Despite the visibility we received from these large organizations, we failed to receive a single response for our Biotech Survey for the first several weeks.

In the meantime, our team worked with Paige Vahle to order a contact list from ReferenceUSA that was authorized for purchase by Dean Hamerly. Once we received the list of 1,064 contacts, our team verified the businesses to ensure they fit our targeted criteria. As we investigated further, we noticed many of the companies were not appropriate participants for our survey. Paige explained there was miscommunication with the representatives from ReferenceUSA, so we received a list that was larger than anticipated with irrelevant organizations. Once we eliminated these organizations, we continued to verify some of the individual contacts to ensure their relevance. We quickly realized that most of the remaining contacts were either in very low-level positions or no longer worked for the stated company. This led us to research each contact individually to ensure the list's integrity; we finished the process with a total of 134 legitimate contacts for our survey. These email addresses were then uploaded to the Qualtrics platform for survey distribution. Despite this effort, our team only collected 7 responses from the ReferenceUSA list.

Dr. Albert Kern also suggested our team connect with members of the Computer Science Technology Engineering and Math (CSTEM) Advisory Council who are affiliated with the bioscience community. We reached out to Dr. Moorthy Palanki, who is the Director of the Biotechnology program at CSUSM, and well respected throughout the industry. He was incredibly helpful and suggested we connect with him on LinkedIn to view his professional contacts to gain participants for our survey. The team identified approximately 60 suitable contacts from Dr. Moorthy's account and began sending private messages to introduce ourselves and explain the scope of our project. We quickly realized that a LinkedIn Premium account was required for sending messages to many of these high-profile individuals, so each member of the team activated a free trial. In addition, there are a variety of LinkedIn Premium options that all have limitations. Each member of the team was only able to send 5-15 messages at a time with these upgraded accounts, which significantly affected our timeline.

Once we reached our maximum message capacity, we each had to wait for a response from previous messages to send another. Some individuals were quick to respond, while many others never replied. The team ultimately gathered 8 additional responses for the Biotechnology and Medical Device Survey through LinkedIn.

Recommendations

The Spring 2021 team would like to make several recommendations to future Senior Experience consultants so they can improve the quality of the project and increase the number of responses. Upon assignment, the team should immediately reach out to Roger Herzler to obtain the SDBJ Confidence Index reports from prior semesters and read them in their entirety. Our team collected prior reports dating back to 2018 and gained valuable insight from reaching this far back. We noticed that although the scope remains unchanged, every team took a different approach, provided unique recommendations, and highlighted specific aspects of the project. Combining the recommendations from several years of experience left us better prepared in the early stages of our endeavor.

Teams should learn how to use the Qualtrics cloud-based software system as soon as possible. This is a sophisticated platform that contains a variety of useful features, but it takes time to navigate the system. Consultants must email the Qualtrics help desk at CSUSM to become an authorized user before they can log in to the school's account. Our team chose to designate two group members for this responsibility, but it would be most advantageous to allow access for the entire team. Consultants should also request increased permissions so they can send a larger number of emails, otherwise they will be limited in their distribution. Once access is granted, consultants will log in from the CSUSM Qualtrics page.

Teams will draft an appeal letter that outlines the scope of the project, which will be uploaded to the Qualtrics platform so an anonymous survey link can be embedded in the text. This is then sent to uploaded contact lists at scheduled times chosen by the team. We decided to send three to four reminder emails, which significantly increased the overall number of

responses. Timing is also an important factor for maximizing response rates, so emails should be sent during business hours when visibility is high. Teams also need to contact Paige Vahle who is responsible for distributing the General Business Survey to CoBA's list of contacts. This is a private and protected list owned by the university, so all efforts for this survey must be coordinated through her.

This semester our team asked respondents of the General Business Survey to best describe their industry. The question listed a variety of industries to choose from, as well as an option titled "other" to allow for free response. Following the presentation of our project to sponsor, Dean Hamerly, we were asked about the breakdown of businesses who participated to identify industries that thrived more than others over the course of our study. We feel the collection of data to understand why some businesses had greater success over others would be useful information to analyze in future reports.

Our team also found it beneficial to contact business associations and organizations who can distribute the survey to a large number of constituents. We found this to be particularly effective for the Tourism and Hospitality Survey, but much less effective for the Biotech and Medical Device Survey. The Spring 2021 team utilized LinkedIn for the Biotech Survey as an alternative approach, which yielded results but proved to be much less efficient than mass distribution. Despite this, many biotech professionals were supportive of our efforts and engaged with us through the messaging feature. We utilized the free LinkedIn Premium trial to reach many of these individuals. This is also an excellent opportunity for consultants to expand their professional networks and gain additional leads. In addition, we highly encourage teams to connect with Dr. Albert Kern and Dr. Moorthy Palanki of the CSTEM department. They are

both widely respected in the bioscience community and can provide useful contacts for future teams to gain greater response rates.

Prior Senior Experience teams have incentivized businesses by offering to share the survey results for their participation. However, the fulfilment of this promise has been neglected in the past, so it is imperative that future consultants ensure these results are delivered. This can be organized with a thank you response on Qualtrics that contains a link to the graphics dashboard for those who engaged in the survey. Ensuring participants receive these results will improve the integrity and reputation of the SDBG project so businesses will continue to support our efforts in the future.

Lastly, many associations, organizations, and business chambers requested a flyer to advertise the project on social media. Prior to 2021, the project was only advertised with a drafted appeal letter that outlines the scope of the project. Our team created four different marketing flyers to distribute to the appropriate parties as an alternative way to advertise the survey. We felt this was a worthwhile effort that should be implemented in the future. The team also chose a divide and conquer strategy for reaching the various industries, which had its strengths and weaknesses. It helped to avoid miscommunication and the overlap of work, but also placed heavy reliance on team members to yield results for the industries they were responsible for. Each industry is unique and requires a different approach, so it may be advantageous to work in small groups and remain fluid in case the work balance shifts.

General Business

Overview

The Senior Experience program at CSUSM has been in partnership with the San Diego Business Journal since Fall of 2015. This will be the twelfth consecutive semester of partnership. The purpose of this project is to construct a Business Confidence Index for general businesses in San Diego County. The surveyed companies vary greatly in scope, structure, and size. Unlike the targeted industry-specific surveys, the General Business Survey is used as a catch-all for any organization that operates in San Diego County. For this report, the Spring 2021 team distributed a survey to over 1,800 businesses in the local region to gain their outlook on operations over the next six months. Aside from the Spring 2020 term, the trend has remained positive throughout the years. Teams have measured the Business Confidence Index as follows: 75.80 in Fall 2015, 74.40 in Spring 2016, 72.16 in Fall 2016, 75.58 in Spring 2017, 73.55 in Fall 2017, 79.08 in Spring 2018, 77.59 in Fall 2018, 77.13 in Spring 2019, 77.24 in Fall 2019, 59.78 in Spring 2020, 64.91 in Fall 2020, and 80.96 in Spring 2021. Appendix H demonstrates the historical trend for the General Business Confidence Index.

Key Objectives

The key objective for the General Business Confidence Index was to provide a semi-annual update of the economic outlook for businesses in San Diego County. A survey was created to gauge future employee retention, anticipated revenues and profits, and company response to the pandemic. This survey was distributed to collect data that helps track business confidence through the comparison of results from prior semesters. The Spring 2021 team

aimed to increase response rate, grow the list of contacts, improve survey quality, and relay insightful information to stakeholders and the local community. The General Business Confidence Index Survey can be found in Appendix A.

Research

After our preliminary meeting with sponsor, Dean Jim Hamerly, and faculty advisor, Dr. Qi Sun, we were able to clarify and better understand this semester's project and its objectives. Our team reviewed prior reports dating back to Fall 2018 to come up with a process framework and note any recommendations from preceding teams. In addition, our team reviewed previous Business Confidence Indices to establish the necessary attributes required for publication in the San Diego Business Journal. After assessing previous survey questions and email templates, appropriate changes were made to better suit the needs of this semester's project. This included modifying questions related to the pandemic and identifying the industry and zip code of the respondent. Modifications made to the Fall 2020 survey can be found in Appendix B.

To add to the lengthy general business contact list owned by the university, we sought after local Chamber of Commerce members. Christine Lee, Community Outreach and Communications Liaison for CSUSM's Office of the President, was able to provide us with a list of Chamber Champion ambassadors. These are CSUSM colleagues who are active at specific Chambers where the university holds membership. The team also reached additional Chamber of Commerce contacts and local businesses that were willing to participate in our survey to add to an evergreen contact list for future teams to utilize.

Methods of Distribution

Once the appeal letter and survey were complete, they were shared with CoBA's

Marketing and Event Specialist, Paige Vahle. Paige is responsible for sending the survey to the university's private list of business contacts in San Diego via the Qualtrics software platform. Paige was periodically reminded by the team to schedule additional reminder emails to increase survey participation throughout the semester. The survey was distributed to approximately 1,855 contacts with the help of Paige on March 18th, March 25th, April 8th, and April 15th.

Meanwhile, the team reached out to all Chambers of Commerce in San Diego County. Previous teams recommended we contact a representative within each chamber to ask for their assistance with distribution to maximize response rate. Chambers for the cities of Carlsbad, Escondido, Fallbrook, Oceanside, San Marcos, Valley Center, and Vista all agreed to share our survey in their newsletters or on social media. In addition, the team contacted the San Diego Regional Chamber of Commerce, San Diego Economic Development Council, and the North San Diego Business Chamber of Commerce, who were all willing to support us as well. We distributed our survey to these contacts by means of our appeal letter and social media flyer, which can be found in Appendices C and D, respectively. This distribution began on March 6th and concluded on April 16th.

Data Collection

Our team collected and analyzed all our data using the Qualtrics software platform. We closed the survey and began reviewing our responses on April 18th. Next, we compiled this information into visual graphs and charts for each question of the survey, which can be found in Appendix E. We were then able to calculate the comprehensive General Business Confidence Index and compare it to past data, which is shown in Appendix G. The Spring 2021 index came

to 80.96 and was incorporated into a line chart that shows the historical trend of indices from prior semesters. This graph can be seen in Appendix H.

Survey Respondents

The General Business Confidence Index Survey was distributed to CoBA's private list of 1,855 business contacts by Paige Vahle. We received 109 responses from this distribution. Our team also disseminated the survey to various Chambers of Commerce and other organizations, which yielded an additional 45 responses. For a detailed list of responses, refer to Appendix E.

Analysis of Results

The following results are based on 128 responses we received from the general business population in San Diego County. The first three questions in our survey were necessary to calculate the General Business Confidence Index. These questions helped answer information regarding employment levels, expected profits, and sales revenue in the next six months. Appendix E shows a visual representation of our findings from the survey. These results also helped us compare confidence index values from previous semesters, as shown in Appendix G. For the Spring 2021 semester, our team has calculated the confidence index at 80.96. This is significantly higher compared to Fall 2020 confidence level of 64.91. When we look at the previous eleven semesters, we see an average General Business Confidence Index of 73.11. The current index is higher than the historical average, and brings the mean up to 73.77, which is an increase of approximately 6.58 points.

Employees

Of the 128 responses we received, 57.03% said their total number of employees is expected to increase in the next 6 months. Approximately 37.50% said that their employment

levels would stay the same, while the remaining 5.47% believe they will decrease. This resulted in a Confidence Index of 75.78 for this question, reflecting a positive outlook as shown in Appendix G. This is higher than the previous result of 64.74 in Fall 2020 and demonstrates a positive increase of 11.04. Appendix F illustrates the method of calculation for all confidence indices.

Revenues

From the 114 responses we received, 73.68% said their revenue is expected to increase in the next 6 months. Approximately 21.05% said that revenues would stay the same, while the remaining 5.47% believe they will decrease. This resulted in a Confidence Index of 84.21 for this question, reflecting a positive outlook as shown in Appendix G. This is higher than the previous result of 67.37 in Fall 2020 and demonstrates a positive increase of 16.84. Appendix F illustrates the method of calculation for all confidence indices.

Profits

Out of 114 responses, 71.05% said their profits are expected to increase in the next 6 months. Approximately 23.68% said that profits would stay the same, while the remaining 5.26% believe they will decrease. This resulted in a Confidence Index of 82.89 for this question, reflecting a positive outlook as shown in Appendix G. This is significantly higher than the previous result of 62.63 in Fall 2020 and a demonstrates a positive increase of 20.26. Appendix F illustrate the method of calculation for all confidence indices.

COVID-19

The next section of our survey asked questions related to the COVID-19 pandemic. Of

the 113 respondents, 37.17% believe it will take 6-12 months for business to return to pre-pandemic levels. Approximately 11.05% believe it will take 0-6 months, 23.01% said it would take 1-2 years, and 9.73% feel it will take more than 2 years for business to return to normal. Conversely, 15.04% of respondents said their business actually grew during the pandemic, while the remaining 3.54 % said business will never return to normal.

The fifth question of our survey received 113 responses and asked participants if their business strategy has changed since the start of the pandemic. Approximately 74.34% replied yes, while the remaining 25.66% said their strategy did not change. We also asked if these businesses adopted new technologies in response to the pandemic and received the same number of replies. Responses to these two questions appeared to be strongly correlated, with 73.45% confirming the use of new technologies and 26.55% stating they have not implemented anything new.

The next question asked participants to elaborate on the new technologies they've incorporated into their business. This was a free response question that received 81 replies. The number of responses for each new technology are as follows: Zoom (20), Virtual Meetings (12), Remote Work Infrastructure (12) Microsoft Teams (6), mobile applications (6), telecommuting (5), tele-health (4), e-commerce (4), online scheduling (3), streaming technology (2), instant messenger (2), new laptops (1), personal protective equipment (1), curbside pickup (1), cloud-based servers (12).

Industry Participation

The last section of our survey aimed to identify the types of respondents who participated and their general geographic location. We provided a long list of options and

received 109 responses. Participants answered the following: Agriculture (3), Advertising & Media (2), Aerospace/Defense (3), Brewing (1), Child/Pet Care (0), Construction & Design (7), Consumer Retail (4), Distribution & Transportation Services (0), Education (3), Energy (0), Engineering (1), Entertainment (3), Food & Beverage (3), Health Care (7), Hospitality & Travel (3), Manufacturing (11), Nonprofit (10), Professional & Financial Services (25), Public Service (2), Real Estate (4), Technology (6), Other (11). For those who classified their industry as “Other”, we asked these participants to elaborate with a free response option. Eight respondents described their industry as: A coworking space with meeting room and audio and sound stages (1), Security (1), Biotechnology (1), Law (1), Automotive Repair (1), Consulting (1), and Surrogacy (1).

The final question of the survey asks participants to specify their zip code. We received a total of 104 responses to this question and matched each zip code to the following general locations: North County (73), South County (0), Central County (30), East County (1).

Craft Brewing

Overview

The craft beer industry plays a significant role in San Diego's economy due to the prominent culture and wide variety of options for locals and tourists to choose from. For this reason, the San Diego Business Journal and CSUSM Senior Experience teams have been examining the industry since Spring 2017. We had the pleasure of working with Paige McWey-Acers to help us distribute our survey to members of the SDBG. The SDBG has worked closely with CSUSM to help CoBA students distribute the Craft Beer Survey since the project's inception.

Unfortunately, during Spring 2020 and Fall 2020 the SDBG declined to participate in the survey due to the effects COVID-19 had on the industry. Historically, the Craft Beer Business Confidence Index has been calculated as follows: 94.42 in Spring 2017, 92.16 in Fall 2017, 94.57 in Spring 2018, 91.28 in Fall 2018, 90.54 in Spring 2019, 87.86 in Fall 2019, 63.05 in Fall 2020, and 90.68 in Spring 2021. The confidence index had its highest peak in Spring 2018, and its lowest point at 63.05 in Fall 2020. Appendix O shows a visual representation of this historical trend.

Key Objectives

The key objective for the Craft Beer Confidence Index was to provide a semi-annual update of the economic outlook for craft breweries in San Diego County. A survey was created to gauge future employee retention, anticipated revenues and profits, company response to the pandemic, and other industry metrics. This survey was distributed to collect data that helps

track business confidence through the comparison of results from prior semesters. The Spring 2021 team aimed to increase response rate, improve survey quality, and relay insightful information to stakeholders and the local community. The Craft Beer Confidence Index Survey can be found in Appendix I.

Research

Upon meeting with sponsor, Dean Jim Hamerly, and faculty advisor, Dr. Qi Sun, our team was able to clarify and better understand the semester's project and its objectives. We reviewed prior reports dating back to Fall 2018 to come up with a process framework and note any recommendations from preceding teams. In addition, our team reviewed previous Business Confidence Indices to establish the necessary attributes required for publication in the San Diego Business Journal. After assessing previous survey questions and email templates, appropriate changes were made to better suit the needs of this semester's project. This included modifying questions related to the pandemic, incorporating industry-specific questions, and identifying the zip code of the respondent. Modifications made to the Fall 2020 survey can be found in Appendix J.

The team also coordinated with Executive Administrator, Paige McWey Acres, of the SDBG, as well as CSUSM Craft Brewing Industry Advisor, Todd Calhoun, to refine our surveys and seek additional guidance. Paige and Todd made several recommendations for the improvement of our survey, appeal letter, and social media flyer to best address the industry. These materials can be found in Appendices I, K, and L, respectively. And despite survey distribution by Paige to the SDBG, response rate remained slow for most of our project. The

team worked to build on a craft beer contact list from Fall 2020 in the event of low participation and for future teams to utilize.

Methods of Distribution

The Spring 2021 Craft Beer Confidence Index Survey was first distributed on March 17th by Paige McWey-Acres, Executive Administrator of the SDBG. She used our appeal letter and social media flyer with embedded survey links to send to members of the brewer's guild on behalf of the team. Previous teams found this was the best strategy for connecting with the desired respondents and enhancing participation. We also asked Paige to send reminder emails on March 30th, April 6th, and April 20th to help increase responses and get more accurate data on the industry. The appeal letter and social media flyer can be found in Appendices K and L, respectively.

Although Paige helped with distribution, our survey had very low participation in the final two weeks leading up to our April 25th deadline. With permission from our sponsor, Dean Jim Hamerly, we utilized and grew a contact list from the Fall 2020 team to gain additional participants. We initially sent out surveys via Qualtrics on April 12th, along with daily reminders during the final week of the survey. After the reminder emails were sent, the survey was closed on April 25th, 2021, at 11:59 p.m. A total of 34 surveys were completed by that date.

Data Collection

Our team collected and analyzed all our data using the Qualtrics software platform. We closed the survey and began reviewing our responses on April 25th. Next, we compiled this information into visual graphs and charts for each question of the survey, which can be found in Appendix M. We were then able to calculate the comprehensive Craft Beer Confidence Index

and compare it to past data, which is shown in Appendix N. The Spring 2021 index came to 90.68 and was incorporated into a line chart that shows the historical trend of indices from prior semesters. This graph can be seen in Appendix O.

Survey Respondents

The Craft Beer Confidence Index survey was distributed to the San Diego Brewers Guild by Paige McWey Acres on March 17th, which resulted in a total of 9 responses. Due to low participation, our team distributed the survey to an additional list of craft beer contacts that was created by the Fall 2020 team on April 12th. This effort yielded us an additional 25 responses, for a total of 34. The survey closed on April 25th and all results can be found in Appendix M.

Analysis of Results

The following results are based on 34 responses we received from the craft brewing population in San Diego County. The first three questions in our survey were necessary to calculate the Craft Beer Confidence Index. These questions helped answer information regarding employment levels, expected profits, and sales revenue in the next six months. Appendix M shows a visual representation of our findings from the survey. These results also helped us compare confidence index values from previous semesters, as shown in Appendix N. For the Spring 2021 semester, our team has calculated the confidence index as 90.68. This is significantly higher compared to Fall 2020 confidence level of 63.05. When we look at the previous seven semesters, we see an average Craft Beer Confidence Index of 87.70. The current index is higher than the historical average, and brings the mean up to 88.07, which is an increase of approximately 0.37 points.

Employees

Of the 34 responses we received, 85.29 % said their total number of employees is expected to increase in the next 6 months. Approximately 11.76% said that their employment levels would stay the same, while the remaining 2.94% believe they will decrease. This resulted in a Confidence Index of 91.17 for this question, reflecting a positive outlook as shown in Appendix N. This is significantly higher than the previous result of 67.40 in Fall 2020 and demonstrates a positive increase of 23.77. Appendix F illustrates the method of calculation for all confidence indices.

Revenues

From the 34 responses we received, 94.12% said their revenue is expected to increase in the next 6 months. Approximately 2.94% said that revenues would stay the same, while the remaining 2.94% believe they will decrease. This resulted in a Confidence Index of 95.59 for this question, reflecting a positive outlook as shown in Appendix N. This is significantly higher than the previous result of 63.04 in Fall 2020 and demonstrates a positive increase of 32.55. Appendix F illustrates the method of calculation for all confidence indices.

Profits

Out of 34 responses, 82.35% said their profits are expected to increase in the next 6 months. Approximately 11.76% said that profits would stay the same, while the remaining 5.88% believe they will decrease. This resulted in a Confidence Index of 85.29 for this question, reflecting a positive outlook as shown in Appendix N. This is significantly higher than the previous result of 58.70 in Fall 2020 and demonstrates a positive increase of 26.59. Appendix F illustrate the method of calculation for all confidence indices.

COVID-19

The next section of our survey asked questions related to the COVID-19 pandemic. Of the 34 respondents, 35.29% believe it will take 6-12 months for business to return to pre-pandemic levels. The same percentage of respondents believe it will take 1-2 years, while 11.76% said it would take 0-6 months for business to return to normal. Conversely, 8.82% of respondents said their business actually grew during the pandemic, while the remaining 8.82 % said business will never return to normal.

The fifth question of our survey received 34 responses and asked participants if their business strategy has changed since the start of the pandemic. Approximately 97.06% replied yes, while the remaining 2.94% said their strategy did not change. We also asked if these businesses adopted new technologies in response to the pandemic and received the same number of replies. Responses to these two questions appeared to be somewhat correlated, with 73.53% confirming the use of new technologies and 26.47% stating they have not implemented anything new.

The next question asked participants to elaborate on the new technologies they've incorporated into their business. This was a free response question that received 31 replies. The number of responses for each new technology are as follows: Zoom (2), online ordering (13), delivery (3), packaging (3), e-commerce (2), canning (2), curbside pickup (1), social media (3), QR codes (1), new equipment (1).

Craft Beer Industry

The final section of our survey asked industry-specific questions to better understand the state and outlook of the craft beer industry. Out of 34 responses, 76.47% of respondents

believe the price of raw materials will increase in the next six months, while 17.65% believe prices will stay the same, and 5.88% believe they will decrease. The same number of participants replied to our next question, which asked about distribution. Approximately 76.47% expect their distribution to increase in the next six months, while 20.59% believe it will stay the same, and 2.94% think it will decrease.

Our final industry question asked brewers about their approximate barrelage in the past 12 months. In the craft beer industry, beer volume is measured in barrels. A BBL is a unit of measure that stands for a brewer barrel and represents 31 gallons of beer (or two kegs). A total of 34 participants reported their barrelage as the following: 52.94% produced 1-1000 bbl, 14.71% produced 1001-2,500 bbl, 11.76% produced 2,501-5,000 bbl, 5.88% produced 5,001-10,000 bbl, 0% produced 10,001-15,000 bbl, 2.94% produced 15,001-30,000 bbl, 8.82% produced 30,001-60,000 bbl, and 2.94% produced more than 60,000 bbl.

The final question asked for the brewer's zip code. From the 34 respondents, 16 reside in North County, 2 in South County, 14 in Central County, and 2 in East County.

Tourism and Hospitality

Overview

The tourism and hospitality industry is essential to San Diego's economy. Many tourists chose to visit the region for its pleasant year-round weather and beautiful sites throughout the county. Senior Experience teams began examining this industry in Fall 2017 due to its prominent role in the local economy. Through this collaborative project with the San Diego Business Journal, the Tourism and Hospitality Business Confidence Indices have been calculated as follows: 78.55 in Fall 2017, 80.45 in Spring 2018, 74.14 in Fall 2018, 69.91 in Spring 2019, 50.28 in Fall 2019, 29.76 in Spring 2020, and 50.00 in Fall 2020. We calculated the highest confidence index for tourism and hospitality in Spring 2021 at 90.87. Appendix V shows a detailed graph of this historical trend.

Key Objectives

The key objective for the Tourism and Hospitality Confidence Index was to provide a semi-annual update of the economic outlook for businesses in San Diego County. A survey was created to gauge future employee retention, anticipated revenues and profits, company response to the pandemic, and other industry metrics. This survey was distributed to collect data that helps track business confidence through the comparison of results from prior semesters. The Spring 2021 team aimed to increase response rate, grow the list of contacts, improve survey quality, and relay insightful information to stakeholders and the local community. The Tourism and Hospitality Confidence Index Survey can be found in Appendix P.

Research

Our team met with sponsor, Dean Jim Hamerly, and faculty advisor, Dr. Qi Sun, at the beginning of the semester to clarify and better understand this semester's project and its objectives. We reviewed prior reports dating back to Fall 2018 to come up with a process framework and note any recommendations from preceding teams. In addition, our team reviewed previous Business Confidence Indices to establish the necessary attributes required for publication in the San Diego Business Journal. After assessing previous survey questions and email templates, appropriate changes were made to better suit the needs of this semester's project. This included modifying questions related to the pandemic, incorporating industry-specific questions, and identifying the zip code of the respondent. Modifications made to the Fall 2020 survey can be found in Appendix Q.

The Spring 2021 team was able to contact the prior semester's Team Coordinator to utilize the contacts they had for the Tourism and Hospitality Survey. Although this gave us a good start, a large portion of the list lacked specific email addresses for hotel managers or professionals with knowledge of financial information. The team was able to locate some managerial contacts by researching hotels in the county, but the most valuable contacts came from locating tourism and hospitality specific associations. The team sent out emails to these associations explaining the objective of our project to see if they would help distribute or share the survey. Luckily, two of the associations responded with enthusiasm and a willingness to help. Of these were the San Diego Hotel-Motel Association (SDHMA) and the Hospitality Sales & Marketing Association International (HSMIA) San Diego Chapter.

Methods of Distribution

Our Spring 2021 team gained access to the list of contacts used by prior semesters in

the beginning phases of the project. These emails were uploaded to Qualtrics as well as additional contacts the team found by browsing hotel websites. The most significant method of distribution was through Ms. Namera Mercer, Executive Director of the San Diego Hotel-Motel Association (SDHMA). The team initially contacted Ms. Mercer on March 10th by utilizing the message request box on the association's website. She quickly responded via email explaining that she would be happy to distribute the survey. The team sent her an appeal letter and flyer, which would be distributed to members of the association. According to their website, SDHMA has up to 170 members, which significantly helped the team reach more tourism organizations. On April 1st, the team asked Ms. Mercer if she would be willing to resend the survey to remind association members of the approaching deadline. That same day, the team received an email response from Veronica of the San Diego County Lodging Association (SDCLA), which is assumed to be in affiliation with SDHMA. Veronica let the team know she had re-sent the appeal letter and flyer, and there was a noticeable spike in survey respondents. The appeal letter and social media flyer can be found in Appendices R and S, respectively.

The team was also able to collaborate with was the Hospitality Sales & Marketing Association International (HSMIA) San Diego Chapter. The team sent an initial request on March 15th, and the following day, Virtual Assistant and Managing Director, Julie Parent, agreed to share the survey via social media. Ms. Parent was kind enough to create a LinkedIn post on March 22nd using our flyer. On April 1st, the team asked Ms. Parent if she could re-share her original post as a reminder of the deadline, but the team did not receive a response from her. Lastly, the team also tried to contact the San Diego County Vintners Association (SDCVA), which is an organization that supports local winegrowing communities. Unfortunately, we did receive

a response but were able to add some additional contacts from wineries researched online to the Qualtrics platform. The survey closed on April 11th at 11:59 p.m.

Data Collection

Our team collected and analyzed all our data using the Qualtrics software platform. We closed the survey and began reviewing our responses on April 11th. Next, we compiled this information into visual graphs and charts for each question of the survey, which can be found in Appendix T. We were then able to calculate the comprehensive Tourism and Hospitality Confidence Index and compare it to past data, which is shown in Appendix U. The Spring 2021 index came to 90.87 and was incorporated into a line chart that shows the historical trend of indices from prior semesters. This graph can be seen in Appendix V.

Survey Respondents

The Tourism and Hospitality Confidence Index Survey was distributed to a list of 89 contacts that were acquired from prior semesters and through our own research. However, this effort only resulted in 7 total responses. We also distributed the survey through two tourism organizations: the Hospitality Sales & Marketing Association International (HSMAI) San Diego Chapter and the San Diego Hotel-Motel Association (SDHMA). HSMAI posted our flyer with a link to the survey on their LinkedIn page, while SDHMA distributed our appeal letter and flyer to their members twice via email. With the help of these associations, we received an additional 47 responses. The survey closed on April 11th with 54 total responses, which can be found in Appendix T.

Analysis of Results

The following results are based on 34 responses we received from tourism and

hospitality businesses in San Diego County. The first three questions in our survey were necessary to calculate the Craft Beer Confidence Index. These questions helped answer information regarding employment levels, expected profits, and sales revenue in the next six months. Our team also incorporated the eighth question of our survey into the index due to its correlation to revenues, which inquired about the anticipated flow of visitors or attendees in the next 6 months. Appendix T shows visual representations of our findings from the survey. These results also helped us compare confidence index values from previous semesters, as shown in Appendix U. For the Spring 2021 semester, our team has calculated the confidence index as 90.87. This is an increase compared to Fall 2020's confidence level of 50.28, and the highest in the project's history for this survey. When we look at the previous seven semesters, we see an average Tourism and Hospitality Confidence Index of 61.87. The current index is higher than the historical average and brings the mean up to 65.49, which is an increase of 3.62 points.

Employees

Of the 54 responses we received, 79.63 % said their total number of employees is expected to increase in the next 6 months. Approximately 18.52% said that their employment levels would stay the same, while the remaining 1.85% believe they will decrease. This resulted in a Confidence Index of 88.89 for this question, reflecting a positive outlook as shown in Appendix U. This is significantly higher than the previous result of 48.68 in Fall 2020 and demonstrates a positive increase of 40.21. Appendix F illustrates the method of calculation for all confidence indices.

Revenues

From the 54 responses we received, 94.44% said their revenue is expected to increase in the next 6 months. Approximately 1.85% said that revenues would stay the same, while the remaining 3.70% believe they will decrease. This resulted in a Confidence Index of 95.37 for this question, reflecting a positive outlook as shown in Appendix U. This is significantly higher than the previous result of 52.63 in Fall 2020 and demonstrates a positive increase of 42.74. Appendix F illustrates the method of calculation for all confidence indices.

Profits

Out of 54 responses, 83.33% said their profits are expected to increase in the next 6 months. Approximately 13.46% said that profits would stay the same, while the remaining 3.85% believe they will decrease. This resulted in a Confidence Index of 89.42 for this question, reflecting a positive outlook as shown in Appendix U. This is significantly higher than the previous result of 48.68 in Fall 2020 and demonstrates a positive increase of 40.74. Appendix F illustrate the method of calculation for all confidence indices.

COVID-19

The next section of our survey asked questions related to the COVID-19 pandemic. Of the 54 respondents, 70.37% believe it will take 1-2 years for business to return to pre-pandemic levels. Approximately 12.96% of respondents believe it will take 6-12 months, while 9.26% said it would take 0-6 months for business to return to normal. Conversely, 5.56% of respondents said their business actually grew during the pandemic, while the remaining 1.85 % said business will never return to normal.

The fifth question of our survey received 54 responses and asked participants if their business strategy has changed since the start of the pandemic. Approximately 94.44% replied

yes, while the remaining 5.56% said their strategy did not change. We also asked if these businesses adopted new technologies in response to the pandemic and received the same number of replies. Responses to these two questions appeared to be somewhat correlated, with 77.78% confirming the use of new technologies and 22.22% stating they have not implemented anything new.

The next question asked participants to elaborate on the new technologies they've incorporated into their business. This was a free response question that received 81 replies (respondents could list multiple technologies). The number of responses for each new technology are as follows: online ordering (16), POS system (3), virtual meetings (10), QR codes (10), contactless options (check-in, payments, check-out, etc.) (20), sanitation measures (stations, kits, projects, UV, etc.) (9), increased health and safety measures (temperature screenings, etc.) (3), digital keys (2), remote work (4), marketing (rebranding, social media, etc.).

Hospitality and Tourism Industry

The final section of our survey focused on matters relevant to the tourism and hospitality industry. The eighth question of our survey was incorporated into the Spring 2021 confidence index due to its correlation to revenues. Of the 52 respondents, 82.69% believe event attendance or visitor number in San Diego will increase in the next six months. Approximately 13.46% believe it will stay the same, and the remaining 3.85% believe it will decrease.

Participants were also asked what they felt would be most prioritized by visitors in the next six months. Multiple answers were allowed, and we received 71 responses to this question. Approximately 42.25% believe visitors will prioritize customer service, experience,

and access to amenities upon their return. Meanwhile, 36.62% believe cleanliness, sanitation, and COVID-19 compliance will be a priority. The remaining 21.13% believe patrons will care more about rewards, discounts, and price. This question resulted in a confidence index of 89.42, which is shown in Appendix U.

The final question simply asks the participants to enter their zip code. Based on 52 responses, 45 were from Central County, 4 were from North County, and zero respondents were from South County.

Biotechnology & Medical Devices

Overview

San Diego is one of the largest biopharma clusters in the world, making bioscience industries significant to the San Diego economy. Previous Senior Experience teams examined the aerospace and defense industry, but this effort suffered chronically low participation rates in previous semesters. This year, the Aerospace and Defense Survey was replaced with the Biotechnology and Medical Device Survey. Our team performed industry research and narrowed the scope of targeted businesses to those that produce products, rather than provide services. Unfortunately, our team struggled to gain high levels of participation for this new survey. However, we were able to establish a contact list and develop relationships within the bioscience community at CSUSM and throughout the county for future teams to build on. The Biotechnology & Medical Device Confidence Index was calculated as 74.44 for Spring 2021 with a total of 15 responses. Appendix AB shows a data table that breaks down the components of this index.

Key Objectives

The key objective for the Biotechnology and Medical Device Confidence Index was to determine the economic outlook of bioscience companies in San Diego County. A survey was created to gauge future employee retention, anticipated revenues and profits, company response to the pandemic, and additional industry metrics. This survey was distributed to collect data so we could establish a baseline for the sentiment of past, current, and future business operations. The Spring 2021 team aimed to attain a statistically significant number of

responses, establish a robust list of contacts, produce a relevant survey, and relay insightful information to stakeholders and the local community. The Biotechnology and Medical Device Confidence Index Survey can be found in Appendix W.

Research

Our team met with sponsor, Dean Jim Hamerly, and faculty advisor, Dr. Qi Sun, at the beginning of the semester to clarify and better understand this semester's project and its objectives. We were informed that the aerospace and defense industry would no longer be included in the project due to the chronically low response rate of previous semesters. This survey would be replaced with a Biotechnology and Medical Device Survey that focused on companies that manufacture products, rather than provide services. The team then conducted an industry analysis to create relevant questions to incorporate in this new survey. Upon completion of this research, we began to compile a list of internal contacts within the CSUSM community of professionals and academics. This list consisted of faculty and advisory board members who are involved with the College of Science, Technology, Engineering, and Math (CSTEM) Department at CSUSM and bioscience community in San Diego.

In an effort to jumpstart our contact list for the biotechnology industry, Dean Hamerly approved the purchase of a contact list from ReferenceUSA. The purchase was coordinated through Paige Vahle and was received on April 1st, 2021, which was well into the project timeline. The team pored over the list and identified important personnel, since each listed organization contained several contacts. Unfortunately, the list was outdated, and many individuals no longer worked for those companies, or were employed in lower-level positions. Once the team identified the appropriate parties to contact, the survey was sent via Qualtrics

to those specific email addresses.

Dean Hamerly suggested we reach out to several individuals, to include Dr. Albert Kern, CSUSM Education Consultant. He gave the team critical leads that opened different lines of communication with both industry executives and advisory board members at California State University, San Marcos. Upon receiving his guidance, the team contacted BIOCOM Vice President, Rick Fultz. BIOCOM is a prominent California life science association in connection with over 4,000 businesses that fit our criteria. Mr. Fultz agreed to advertise our survey on the organization's LinkedIn page by posting our social media flyer. This graphic can be found in Appendix Z.

Dr. Kern also advised us to reach Peter Callstrom, the CEO of the San Diego Workforce Partnership. Mr. Callstrom agreed to advertise the survey and referred us to Amanda Cheney who is the Business Advisor and Resource Connector for the California Manufacturing Technology Consulting (CMTTC). This is a non-profit consulting company that helps customers increase their return on investment through efficiency and has connections with a large number of medical device manufacturing companies in the San Diego region. Both of these organizations shared our survey on LinkedIn as well.

The team also contacted Dr. Moorthy Palanki, who is the Program Director for the CSTEM department at CSUSM. He provided us a list of biotechnology companies in San Diego County and suggested we go through his contacts on LinkedIn to identify anyone affiliated with those organizations. Once we formulated a list of contacts, we sent private messages about our survey to each person and mentioned the referral from Dr. Palanki. Unfortunately, this was not the most effective way to gain a large number of participants over a short period of time

because a premium account was required to reach those individuals. Furthermore, the restrictions on a LinkedIn Premium account prevented us from sending more than 5-15 messages at a time, depending on the tier of membership. Each team member that did not have a LinkedIn Premium account activated the platform's free trial to accomplish this task. Despite the tedious nature of this approach, it appears to be the strategy that yielded the most participants. The message template our team used to contact these individuals can be found in Appendix Y.

Methods of Distribution

Once the team finalized the contact list from ReferenceUSA, we uploaded it to Qualtrics to email the list of addresses. The first batch of emails were sent on March 29th at 9:30am PST to 152 of the contacts from Reference USA using the appeal letter shown in Appendix X. We initially had our deadline for April 11th, but because we received the contact list late and struggled to gain additional participants, the deadline was extended to April 25th. To help encourage participation in our survey we had weekly reminders sent to unfinished respondents on April 5th, April 12th, and April 19th. The team also reached out to biotech professionals who were connected to Dr. Moorthy Palanki of the CSTEM Department on LinkedIn. The message we used to contact individuals on this platform can be found in Appendix Y.

Data Collection

Our team collected and analyzed all our data using the Qualtrics software platform. We closed the survey and began reviewing our responses on April 25th. Next, we compiled this information into visual graphs and charts for each question of the survey, which can be found in Appendix AA. We were then able to calculate the comprehensive Biotechnology and Medical

Device Confidence Index, which came to 74.44. Since this was the first semester a team analyzed these industries, we did not have historical data to draw comparisons.

Survey Respondents

Our team obtained contacts for the biotechnology and medical device survey through a variety of methods. We initially spoke to Dr. Albert Kern, who gave us some influential contacts at BIOCOM. We were able to reach the organization's Vice President, Mr. Rick Fultz, who agreed to post the graphical advertisement for our survey on BIOCOM's LinkedIn page, as shown in Appendix Z. This contact led us to Amanda Cheyney, who is a Business Advisor and Resource Connector for California Manufacturing Technology Consulting (CMTC), and she agreed to share our graphic on their LinkedIn page as well. Despite the large number of professional contacts involved with these organizations, this effort did not result in any survey participants. The graphic was reposted three separate times by both BIOCOM and CMTC throughout the survey window.

Since it was the first year a senior experience team has surveyed these industries, Dean Hamerly authorized the purchase of a contact list from ReferenceUSA for the San Diego region. Once the team filtered the list to ensure only relevant contacts, a total of 165 emails were sent via Qualtrics. The team received 7 total responses from this effort after sending three weekly reminders over the duration of the survey.

In an effort to increase the number of responses, the team also reached Dr. Moorthy Palanki of the College of Science, Technology, Engineering, and Math (CSTEM) Department at CSUSM. Two of the team members connected with him on LinkedIn to gain access to his professional contacts, as he is well connected with the biotechnology community in San Diego

County. The entire team then activated their own free LinkedIn Premium trial accounts to privately message these professionals and gain survey participants. The introductory message used for this effort can be found in Appendix Y. Despite the number of replies we received; the trial feature limited each group member to 5 to 15 messages at a time. A new message could only be sent after a certain amount of time had elapsed, or upon receiving a reply from a prior message. This heavily limited our ability to reach many contacts at once. The team received 8 survey responses from LinkedIn contacts and a total of 15 survey responses overall. The survey closed on April 25th.

Analysis of Results

The following results are based on the 15 responses we received from biotechnology and medical device firms in San Diego County. The first three questions in our survey were necessary to calculate the Biotechnology and Medical Device Confidence Index. These questions helped answer information regarding employment levels, expected profits and sales revenue in the next six months. Appendix AA shows a visual representation of our results from these questions. For the Spring 2021 Semester, our team has calculated the confidence index to be 74.44.

Employees

Of the 15 responses we received, 73.33 % said their total number of employees is expected to increase in the next 6 months. Approximately 26.67% said that their employment levels would stay the same, while none believe they will decrease. This resulted in a Confidence Index of 86.67 for this question, reflecting a positive outlook as shown in Appendix AB. Appendix F illustrates the method of calculation for all confidence indices.

Revenues

From the 15 responses we received, 60.00% said their revenue is expected to stay the same in the next 6 months. Approximately 40.00% said that revenues would increase, while none believe they will decrease. This resulted in a Confidence Index of 70.00 for this question, reflecting a positive outlook as shown in Appendix AB. Appendix F illustrates the method of calculation for all confidence indices.

Profits

Out of 15 responses, 33.33% said their profits are expected to increase in the next 6 months. Approximately 66.67% said that profits would stay the same, while none believe they will decrease. This resulted in a Confidence Index of 66.67 for this question, reflecting a positive outlook as shown in Appendix AB. Appendix F illustrate the method of calculation for all confidence indices.

COVID-19

The next section of our survey asked questions related to the COVID-19 pandemic. Of the 15 respondents, 40.00% believe it will take 6-12 months for business to return to pre-pandemic levels. Approximately 33.33% of respondents believe it will take 0-12 months, while 20.00% said it would take 1-2years for business to return to normal. Conversely, 6.67% of respondents said their business actually grew during the pandemic, while none said business will never return to normal.

The fifth question of our survey received 15 responses and asked participants if their business strategy has changed since the start of the pandemic. Approximately 67.67% replied yes, while the remaining 33.33% said their strategy did not change. We also asked if these

businesses adopted new technologies in response to the pandemic and received the same number of replies. Responses to these two questions appeared to be highly correlated, with 60.00% confirming the use of new technologies and 40.00% stating they have not implemented anything new.

The next question asked participants to elaborate on the new technologies they've incorporated into their business. This was a free response question that received 9 replies. The number of responses for each new technology are as follows: Zoom (4), remote work (2), Microsoft Teams (2), tele-health (1).

Biotechnology and Medical Device Industries

The final section of our survey focused on questions specifically related to the biotechnology and medical device industries. Of the 15 respondents, 60.00% said their investment in Research and Development has stayed the same in the past 12 months, while 40.00% noted an increase in spending. Zero participants said this amount decreased. We also asked about investment funding and received the same number of replies. Approximately 53.33% of respondents said they expect investment funding to increase in the next 6 months, while 46.67% believe it will stay the same. None of the participants believe this amount will decrease.

The ninth question of our survey asked about government regulation. Out of 15 responses, 53.33% do not feel the regulatory environment of our current presidential administration will impact their business at all. Conversely, 33.33% believe it will help business, while the remaining 13.33% said it will hurt business. Lastly, the final question of our survey asked participants to enter their zip code. Based on the 14 respondents, 12 were from Central

County, while the remaining two were from North County. None of our participants came from East or South Counties.

References

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Appendix

Appendix A

Final Survey Administered - General Business

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- More than 2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied "yes" to Q6, what new technologies has your business adopted?

Q8. How would you best classify your industry?

- Agriculture
- Advertising & Media
- Aerospace/Defense
- Brewing
- Child/Pet Care
- Construction & Design
- Consumer Retail
- Distribution & Transportation Services
- Education
- Energy
- Engineering
- Entertainment
- Food & Beverage
- Health Care
- Hospitality & Travel
- Manufacturing
- Nonprofit
- Professional & Financial Services
- Public Service
- Real Estate
- Technology
- Other

Q9. If you classified your industry as “other” in the previous question, please describe:

Q10. Please input your business ZIP code:

Appendix B Updates to Fall 2020 Survey - General Business

Key: ~~Strike through~~ = removed
Red text = new

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. ~~Has your business received any Federal/State support in the form of loans or grants?~~

- ~~• Yes~~
- ~~• No~~
- ~~• Prefer not to answer~~

Q5. ~~If yes, what program(s)?~~

- ~~• CARES Act~~
- ~~• Small Business Relief Fund (SBRF)~~
- ~~• OnwardCA~~
- ~~• Other: _____~~

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied “yes” to Q6, what new technologies has your business adopted?

Q8. How would you best classify your industry?

- Agriculture
- Advertising & Media
- Aerospace/Defense
- Brewing
- Child/Pet Care
- Construction & Design
- Consumer Retail
- Distribution & Transportation Services
- Education
- Energy
- Engineering
- Entertainment
- Food & Beverage
- Health Care
- Hospitality & Travel
- Manufacturing
- Nonprofit
- Professional & Financial Services
- Public Service
- Real Estate
- Technology
- Other

Q9. If you classified your industry as “other” in the previous question, please describe:

Q10. Please input your business ZIP code: _____

Appendix C
Appeal Letter - General Business

Subject Line: CSUSM Students Need Your Assistance

Dear Business Community Member,

Students of the College of Business Administration at California State University, San Marcos have been working to create a Business Confidence Index to be published in the San Diego Business Journal.

The goal of this index is to provide valuable metrics to the local business community regarding the current state and outlook of our regional economy. You can learn more about this project, see results from previous years, and discover industry trends here.

In addition, we will be distributing the findings to respondents once the report is complete. This is a unique opportunity to gauge the sentiment of competitors in your industry while also helping the San Diego business community at large.

This survey should take approximately 2-3 minutes to complete, and all answers will be recorded and published with complete anonymity.

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://csusm.co1.qualtrics.com/jfe/form/SV_b8wLNw1eyq5FcDs

Thank you for taking the time to participate in the Business Confidence Index survey! Please complete the survey before **April 18th, 2021**.

Sincerely,

Jim Hamerly, Ph.D.

Dean, College of Business Administration California State University San Marcos

Barbara Chodos

President and Publisher, San Diego Business Journal

Appendix D
Social Media Flyer - General Business



**SAN DIEGO
BUSINESS
JOURNAL**

California State University
SAN MARCOS

WHAT'S THE OUTLOOK FOR BUSINESS IN SAN DIEGO?

Take our survey and we
will send you the results!

Find out where you stand
among competitors in
your industry.

Senior business students at California
State University, San Marcos and the San
Diego Business Journal are building a
Business Confidence Index to determine
the sentiment among local businesses.
Your support is appreciated!

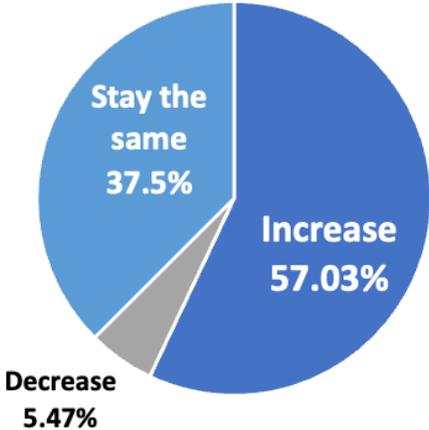
Copy the link below or use the QR code to take the survey:

https://csusm.co1.qualtrics.com/jfe/form/SV_b8wLNw1eyq5FcDs



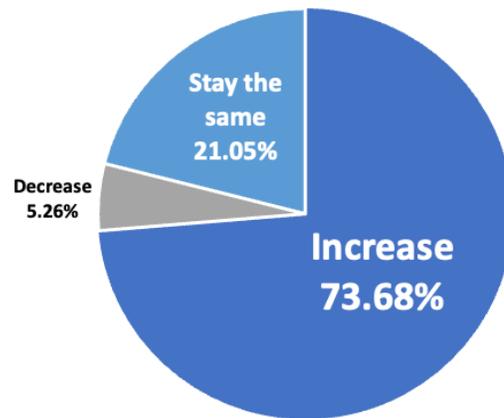
Appendix E
Final Survey Results - General Business

Q1. In the next 6 months, your firm's total number of employees is expected to:



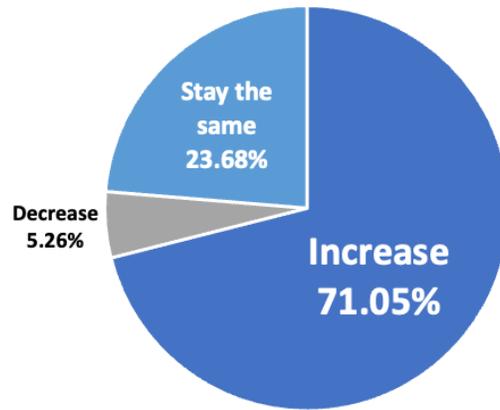
	Answer	Percentage	Count
1	Increase	57.03%	73
2	Decrease	5.47%	7
3	Stay the Same	37.50%	48
		Total:	128

Q2. In the next 6 months, your firm's sales revenue is expected to:



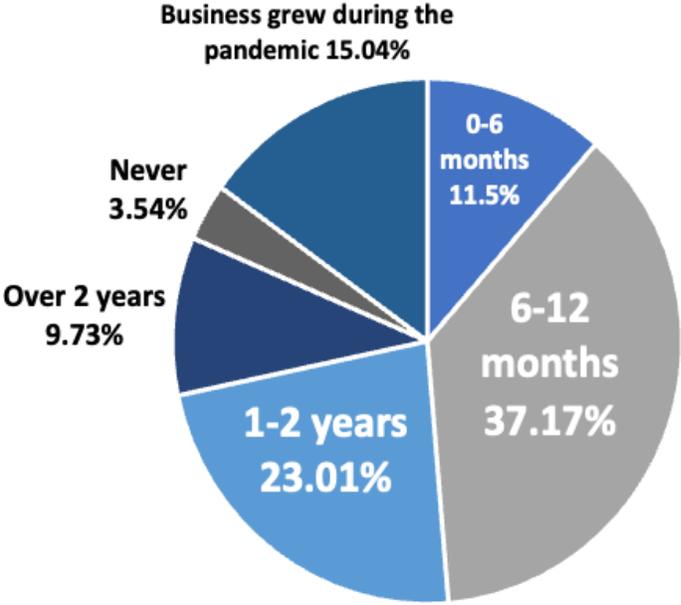
	Answer	Percentage	Count
1	Increase	73.68%	84
2	Decrease	5.26%	6
3	Stay the Same	21.05%	24
		Total:	114

Q3. In the next 6 months, your firm's profits are expected to:



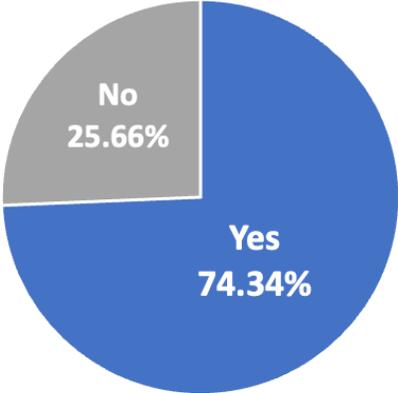
	Answer	Percentage	Count
1	Increase	71.05%	81
2	Decrease	5.26%	6
3	Stay the Same	23.68%	27
		Total:	114

Q4. When do you anticipate business will return to pre-pandemic levels?



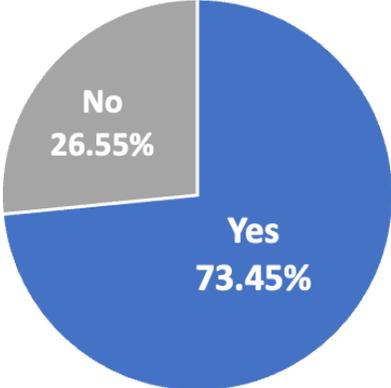
	Answer	Percentage	Count
1	0-6 Months	11.50%	13
2	6-12 Months	37.17%	42
3	1-2 Years	23.01%	26
4	Over 2 Years	9.73%	11
5	Never	3.54%	4
6	Our business grew during the pandemic	15.04%	17
		Total:	113

Q5. Has your business strategy changed since the pandemic started?



	Answer	Percentage	Count
1	Yes	74.34%	84
2	No	25.66%	29
		Total:	113

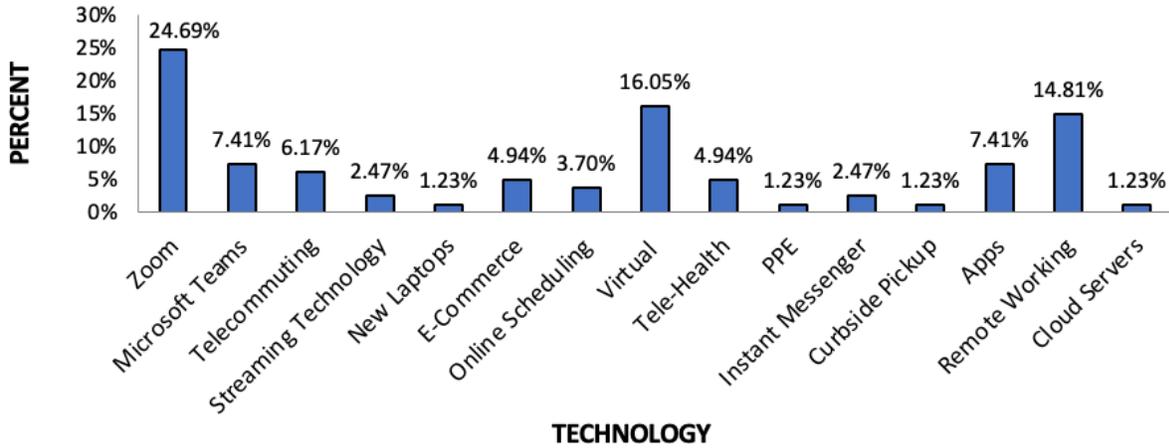
Q6. Has your business adopted new technologies in response to the pandemic?



	Answer	Percentage	Count
1	Yes	73.45%	83
2	No	26.55%	30
		Total:	113

Q7. If you replied “yes” to Q6, what new technologies has your business adopted?

Adopted Technologies in Response to Pandemic

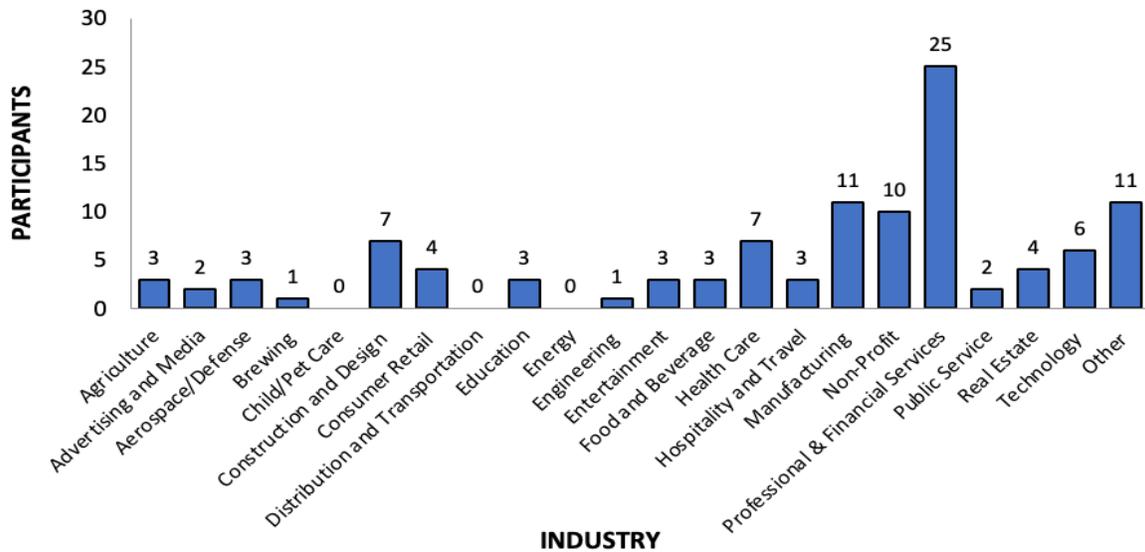


	Answer	Percentage	Count
1	Zoom	24.69%	20
2	Microsoft Teams	7.41%	6
3	Telecommuting	6.17%	5
4	Streaming Technology	2.47%	2
5	New Laptops	1.23%	1
6	E-Commerce	4.94%	4
7	Online Scheduling	3.70%	3
8	Virtual	16.05%	13
9	Tele-Health	4.94%	4
10	PPE	1.23%	1
11	Instant Messenger	2.47%	2
12	Curbside Pickup	1.23%	1
13	Apps	7.41%	6
14	Remote Working	14.81%	12
15	Cloud Servers	1.23%	1
	Total:		81

(Free Response Question, numbers do not equal the number of total responses from survey)

Q8. How would you best classify your industry?

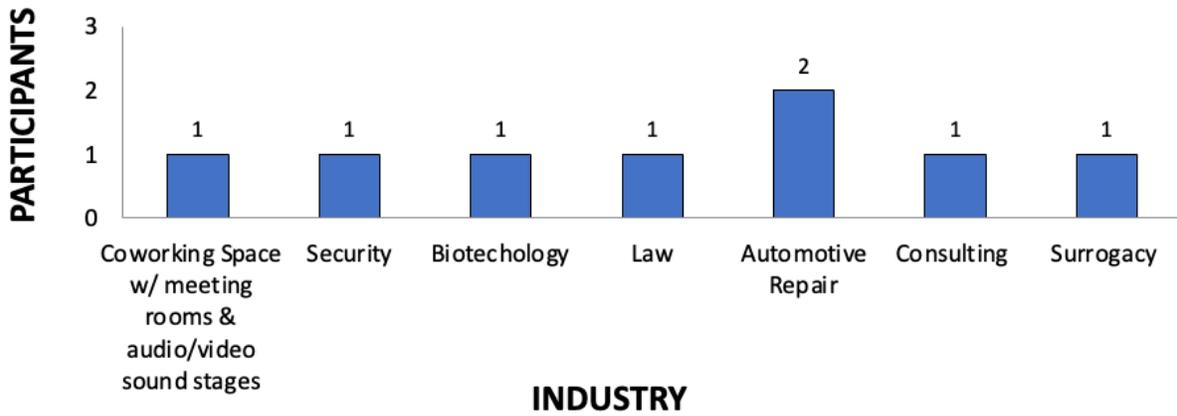
Participating Industries for General Business Survey



	Answer	Percentage	Count
1	Agriculture	2.75%	3
2	Advertising and Media	1.83%	2
3	Aerospace/Defense	2.75%	3
4	Brewing	0.92%	1
5	Child/Pet Care	0.00%	0
6	Construction and Design	6.42%	7
7	Consumer Retail	3.67%	4
8	Distribution and Transportation	0.00%	0
9	Education	2.75%	3
10	Energy	0.00%	0
11	Engineering	0.92%	1
12	Entertainment	2.75%	3
13	Food and Beverage	2.75%	3
14	Health Care	6.42%	7
15	Hospitality and Travel	2.75%	3
16	Manufacturing	10.09%	11
17	Non-Profit	9.17%	10
18	Professional & Financial Services	22.94%	25
19	Public Service	1.83%	2
20	Real Estate	3.67%	4
21	Technology	5.50%	6
22	Other	10.09%	11
	Total:		109

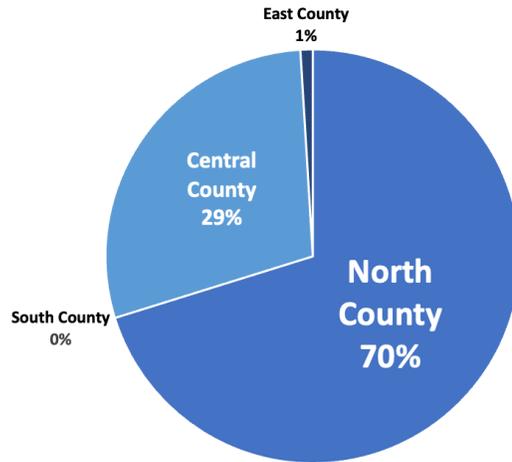
Q9. If you classified your industry as “other” in the previous question, please describe your industry:

Other Participating Industries for General Business Survey

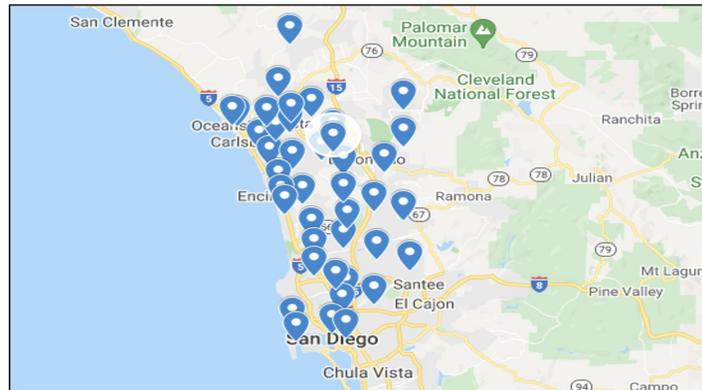


	Answer	Percentage	Count
1	Coworking Space	12.5%	1
2	Security	12.5%	1
3	Biotechnology	12.5%	1
4	Law	12.5%	1
5	Automotive Repair	25.0%	2
6	Consulting	12.5%	1
7	Surrogacy	12.5%	1
	Total:		8

Q10. Please input your business ZIP Code:



Answer	Percentage	Count
North County	70.19%	73
South County	0.00%	0
Central County	28.85%	30
East County	0.96%	1
	Total:	104



Appendix F Calculation of the Confidence Index

To calculate the confidence indices, take the following steps:

Step 1: Convert the number of responses for each potential answer into a percentage

Divide the number of responses for each answer by the total number of responses for the question

i.e.: increase = 7, decrease = 3, and stay the same = 1

Increase: $7/10 = 70\%$,

Decrease: $3/10 = 30\%$

Stay the Same: $1/10 = 10\%$

These results are provided through the Qualtrics survey results report.

Step 2: Use the Confidence Index Formula to calculate the index

Please note that this project uses a 100-point diffusion index.

Therefore, Increase = 1, Decrease = 0, and Neutral = 0.5

Confidence Index = [% increase + (0.5) x (% neutral)] x 100

Step 3: Repeat steps 1 & 2 to find the index for each question

Calculate the overall confidence index for each respective industry by adding up all of the indices and dividing by the total number of questions.

Step 4: Interpret the results

A Confidence Index of 50 infers a net change of zero. The respective industry(ies) is (are) not expecting an increase or decrease.

A Confidence Index of above 50 infers a positive industry outlook. A Confidence Index of below 50 infers a negative industry outlook.

Appendix G
Historical Business Confidence Indices - General Business

Fall 2015 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 6 months, your firm's profits are likely to:	66%	24%	3%	94%	78
5	Over the next 6 months, your firm's sales revenue is likely to:	72%	22%	3%	98%	83
6	Over the next 6 months, your firm's total number of employees is likely to:	66%	23%	9%	99%	77.5
7	Your outlook for your industry over the next 6 months is generally:	48%	47%	3%	98%	71.5
8	Compared to your competition, how is your company performing?	44%	50%	5%	99%	69

Fall 2015 General Business Confidence Index: 75.8

Spring 2016 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 6 months, your firm's profits are likely to:	59%	24%	7%	100%	76
5	Over the next 6 months, your firm's sales revenue is likely to:	63%	31%	6%	100%	78.5
6	Over the next 6 months, your firm's total number of employees is likely to:	62%	31%	7%	100%	77.5
7	Your outlook for your industry over the next 6 months is generally:	38%	58%	5%	100%	67
8	Compared to your competition, how is your company performing?	51%	44%	5%	100%	73

Spring 2016 General Business Confidence Index: 74.4

Fall 2016 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 12 months, your firm's profits are likely to:	54.25%	35.5%	9.96%	100%	72.29
5	Over the next 12 months, your firm's sales revenue is likely to:	57.14%	32.03%	10.82%	100%	73.16
6	Over the next 12 months, your firm's total number of employees is likely to:	44.16%	49.35%	6.49%	100%	69.83
7	Your outlook for your industry over the next 12 months is generally:	58.44%	33.33%	8.23%	100%	75.11
8	Compared to your competition, how is your company performing?	48.48%	45.48%	5.63%	100%	71.43

Fall 2016 General Business Confidence Index: 72.16

Spring 2017 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 6 months, your firm's profits are likely to:	60.45%	32.73%	6.82%	100%	76.82
5	Over the next 6 months, your firm's sales revenue is likely to:	65.44%	27.65%	6.91%	100%	79.27
6	Over the next 6 months, your firm's total number of employees is likely to:	40.45%	57.73%	1.82%	100%	69.32
7	Your outlook for your industry over the next 6 months is generally:	66.06%	29.41%	4.53%	100%	80.77
8	Compared to your competition, how is your company performing?	48.42%	46.61%	4.97%	100%	71.71

Spring 2017 General Business Confidence Index: 75.58

Fall 2017 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 12 months, your firm's profits are likely to:	59.21%	31.58%	9.21%	100%	75
5	Over the next 12 months, your firm's sales revenue is likely to:	61.84%	26.61%	8.55%	100%	76.65
6	Over the next 12 months, your firm's total number of employees is likely to:	42.11%	53.95%	3.94%	100%	69.09
7	Your outlook for your industry over the next 12 months is generally:	57.91%	34.21%	7.89%	100%	75.01
8	Compared to your competition, how is your company performing?	48.68%	46.71%	4.61%	100%	72.04

Fall 2017 General Business Confidence Index: 73.55

Spring 2018 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 6 months, your firm's profits are likely to:	68.48%	25.54%	5.98%	100%	81.25
5	Over the next 6 months, your firm's sales revenue is likely to:	71.74%	23.37%	4.89%	100%	83.43
6	Over the next 6 months, your firm's total number of employees is likely to:	51.63%	42.93%	5.43%	100%	73.10
7	Your outlook for your industry over the next 6 months is generally:	73.37%	21.20%	5.43%	100%	83.97
8	Compared to your competition, how is your company performing?	52.72%	41.85%	5.43%	100%	73.65

Spring 2018 General Business Confidence Index: 79.08

Fall 2018 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 12 months, your firm's profits are likely to:	64.66%	27.59%	7.76%	100%	78.45
5	Over the next 12 months, your firm's sales revenue is likely to:	70.69%	23.28%	6.03%	100%	82.33
6	Over the next 12 months, your firm's total number of employees is likely to:	48.28%	47.41%	4.31%	100%	71.98
7	Your outlook for your industry over the next 12 months is generally:	68.97%	25.89%	5.17%	100%	81.90
8	Compared to your competition, how is your company performing?	54.31%	37.93%	7.76%	100%	73.28

Fall 2018 General Business Confidence Index: 77.59

Spring 2019 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 6 months, your firm's profits are likely to:	62.98%	30.39%	6.63%	100%	78.18
3	Over the next 6 months, your firm's sales revenue is likely to:	70.10%	26.52%	3.31%	100%	83.43
5	Over the next 6 months, your firm's total number of employees is likely to:	42.54%	53.59%	3.87%	100%	69.34
6	Your outlook for your industry over the next 6 months is generally:	68.51%	26.52%	4.97%	100%	81.77
7	Compared to your competition, how is your company performing?	51.93%	41.99%	6.08%	100%	72.93

Spring 2019 General Business Confidence Index: 77.13

Fall 2019 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
3	Over the next 12 months, your firm's profits are likely to:	61.62%	35.35%	3.03%	100%	79.3
4	Over the next 12 months, your firm's sales revenue is likely to:	55.56%	36.36%	8.08%	100%	73.74
5	Over the next 12 months, your firm's total number of employees is likely to:	49.49%	41.41%	9.09%	100%	70.20
6	Your outlook for your industry over the next 12 months is generally:	58.59%	34.34%	7.07%	100%	75.76
7	Compared to your competition, how is your company performing?	48.48%	47.47%	4.04%	100%	72.22

Fall 2019 General Business Confidence Index: 74.24

Spring 2020 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
3	Over the next 6 months, your firm's profits are likely to:	46.02%	21.24%	32.74%	100%	56.64
4	Over the next 6 months, your firm's sales revenue is likely to:	43.36%	20.35%	36.28%	100%	53.54
5	Over the next 6 months, your firm's total number of employees is likely to:	37.37%	43.43%	19.19%	100%	59.09
6	Your outlook for your industry over the next 6 months is generally:	40.71%	30.97%	28.32%	100%	56.20
7	Compared to your competition, how is your company performing?	49.56%	47.79%	2.65%	100%	73.46

Spring 2020 General Business Confidence Index: 59.78

Fall 2020 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Over the next 6 months, your firm's total number of employees is likely to:	40.00%	49.47%	10.53%	100%	64.74
2	Over the next 6 months, your firm's sales revenue is expected to:	51.58%	31.58%	16.84%	100%	67.37
3	Over the next 6 months, your firm's profits are expected to:	45.26%	34.74%	20.00%	100%	62.63

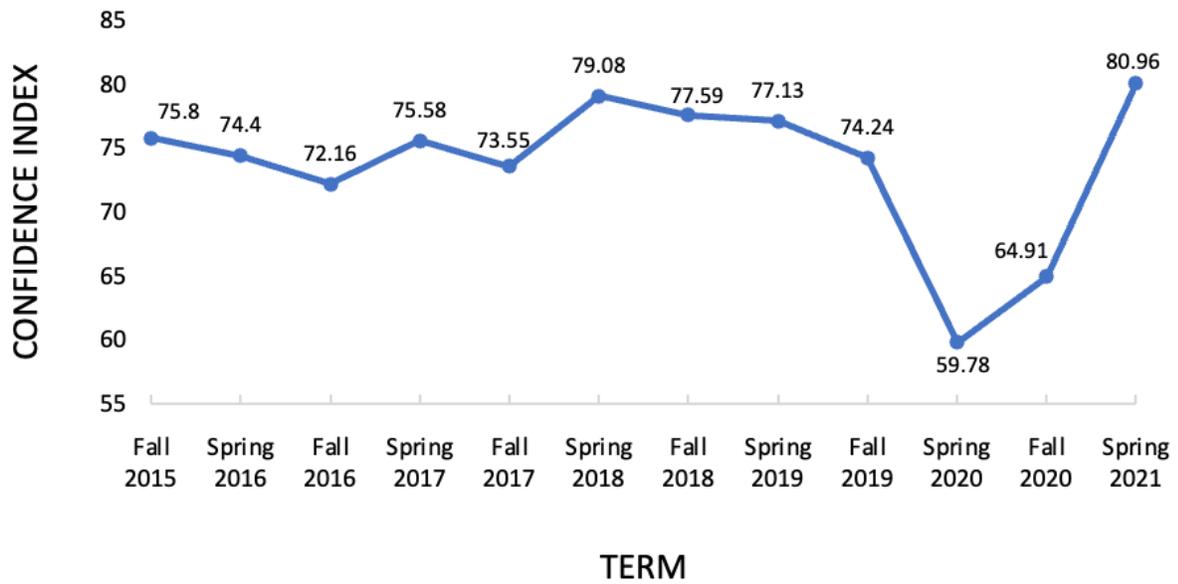
Fall 2020 General Business Confidence Index: 64.91

Spring 2021 - General Business Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 6 months, your firm's total number of employees is expected to:	57.03%	37.50%	5.47%	100%	75.78
2	In the next 6 months, your firm's sales revenue is expected to:	73.68%	21.05%	5.26%	100%	84.21
3	In the next 6 months, your firm's profits are expected to:	71.05%	23.68%	5.26%	100%	82.89

Spring 2021 General Business Confidence Index: 80.96

Appendix H
Business Confidence Index Trend - General Business

General Business Confidence Trend



Historical Data:

Term	Confidence Index
Fall 2015	75.8
Spring 2016	74.4
Fall 2016	72.16
Spring 2017	75.58
Fall 2017	73.55
Spring 2018	79.08
Fall 2018	77.59
Spring 2019	77.13
Fall 2019	74.24
Spring 2020	59.78
Fall 2020	64.91
Spring 2021	80.96

Appendix I
Final Survey Administered - Craft Beer

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied "yes" to Q6, what new technologies have your business adopted?

Q8. In the next 6 months, you expect the price of raw materials for your business to:

- Increase

- Decrease
- Stay the same

Q9. In the next 6 months, your brewery expects distribution to:

- Increase
- Decrease
- Stay the same

Q10. In the past 12 months, what was your brewery's barrelage approximately?

- 1 - 1000bbl
- 1,001 - 2,500bbl
- 2,501 - 5,000bbl
- 5,001 - 10,000bbl
- 10,001 - 15,000bbl
- 15,001 - 30,000bbl
- 30,001 - 60,000bbl
- More than 60,000bbl

Q11. Please input your business zip code:

Appendix J

Updates to Fall 2020 Survey - Craft Beer

Key: ~~Strike through~~ = removed
Red text = new

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

~~Q4. Has your business received any Federal/State support in the form of loans or grants?~~

- ~~• Yes~~
- ~~• No~~
- ~~• Prefer not to answer~~

~~Q5. If yes, what program(s)?~~

- ~~• CARES Act~~
- ~~• Small Business Relief Fund (SBRF)~~
- ~~• OnwardCA~~
- ~~• Other (please specify): _____~~

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

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Q7. If you replied “yes” to Q6, what new technologies have your business adopted?

Q8. In the next 6 months, you expect the price of raw materials for your business to:

- Increase
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Q9. In the next 6 months, your brewery expects distribution to:

- Increase
- Decrease
- Stay the same

Q10. In the past 12 months, what was your brewery’s barrelage approximately?

- 1 - 1000bbl
- 1,001 - 2,500bbl
- 2,501 - 5,000bbl
- 5,001 - 10,000bbl
- 10,001 - 15,000bbl
- 15,001 - 30,000bbl
- 30,001 - 60,000bbl
- More than 60,000bbl

Q11. Please input your business zip code:

Appendix K
Appeal Letter - Craft Beer

Subject Line: CSUSM Students Need Your Assistance

Dear Esteemed Brewer,

Students of the College of Business Administration at California State University, San Marcos have been working to create a Business Confidence Index to be published in the San Diego Business Journal.

The goal of this index is to provide valuable metrics to the local business community regarding the current state and outlook of our regional economy. You can learn more about this project, see results from previous years, and discover industry trends here.

In addition, we will be distributing the findings to respondents once the report is complete. This is a unique opportunity to gauge the sentiment of your peers within your industry while also helping the San Diego business community at large.

This survey should take approximately 2-3 minutes to complete, and all answers will be recorded and published with complete anonymity.

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://csusm.co1.qualtrics.com/jfe/form/SV_bvYn0L5VsUHskuy

Thank you for taking the time to participate in the Business Confidence Index survey! Please complete the survey before **April 25th, 2021**.

Sincerely,

Jim Hamerly, Ph.D.

Dean, College of Business Administration California State University San Marcos

Barbara Chodos

President and Publisher, San Diego Business Journal

Appendix L
Social Media Flyer - Craft Beer



SAN DIEGO BUSINESS JOURNAL

California State University
SAN MARCOS

WHAT'S THE OUTLOOK FOR CRAFT BEER IN SAN DIEGO?

Take our survey and we will send you the results!

Find out where you stand among peers in your industry.

Senior business students at California State University, San Marcos and the San Diego Business Journal are building a **Business Confidence Index** to determine the sentiment among local businesses. Your support is appreciated!

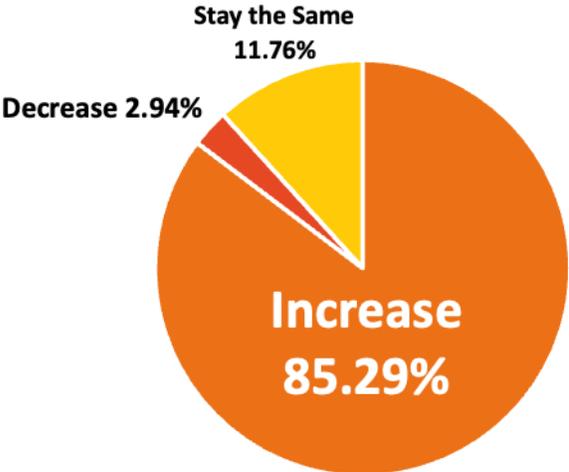
Copy the link below or use the QR code to take the survey:

https://csusm.co1.qualtrics.com/jfe/form/SV_bvYn0L5VsUHskuy



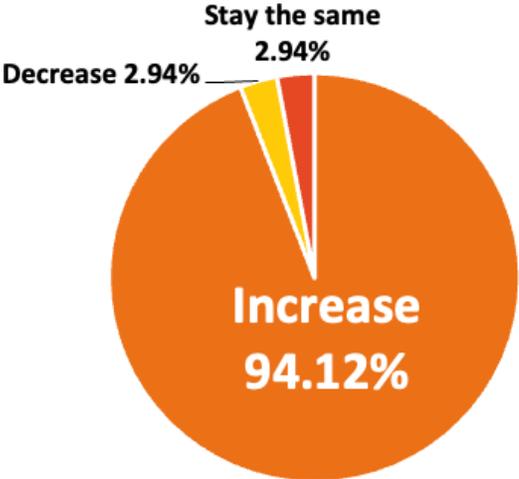
Appendix M
Final Survey Results - Craft Beer

Q1. In the next 6 months, your firm’s total number of employees is expected to:



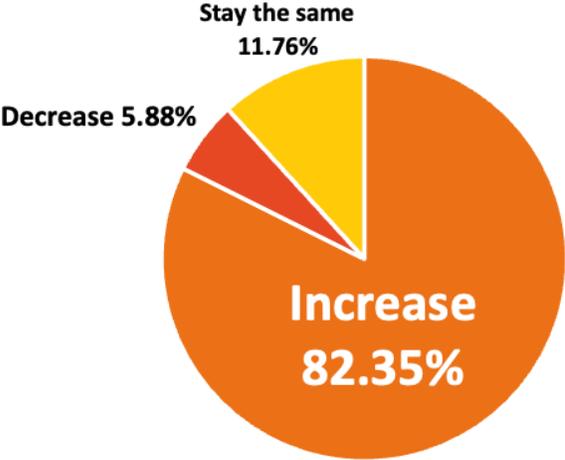
	Answer	Percentage	Count
1	Increase	85.29%	29
2	Decrease	2.94%	1
3	Stay the Same	11.76%	4
		Total:	34

Q2. In the next 6 months, your firm's sales revenue is expected to:



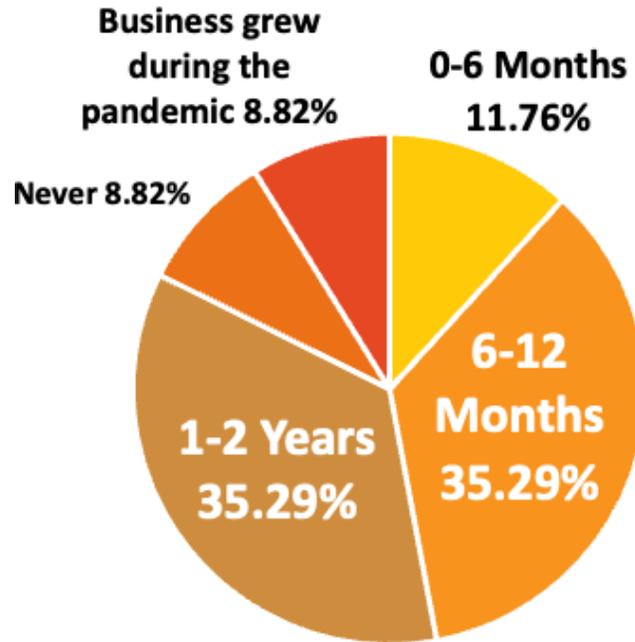
	Answer	Percentage	Count
1	Increase	94.12%	32
2	Decrease	2.94%	1
3	Stay the Same	2.94%	1
		Total:	34

Q3. In the next 6 months, your firm's profits are expected to:



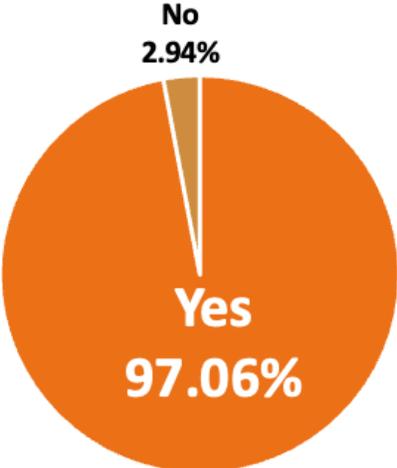
	Answer	Percentage	Count
1	Increase	82.35%	28
2	Decrease	5.88%	2
3	Stay the Same	11.76%	4
		Total:	34

Q4. When do you anticipate business will return to pre-pandemic levels?



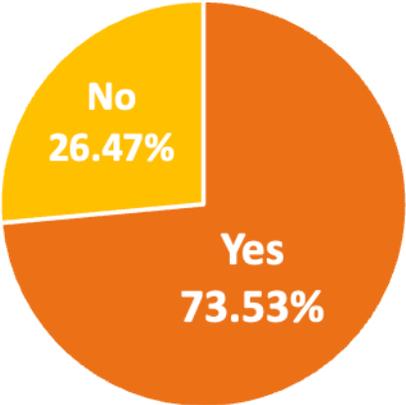
	Answer	Percentage	Count
1	0-6 Months	11.76%	4
2	6-12 Months	35.29%	12
3	1-2 Years	35.29%	12
4	Never	8.82%	3
5	Our business grew during the pandemic	8.82%	3
	Total:		34

Q5. Has your business strategy changed since the pandemic started?



	Answer	Percentage	Count
1	Yes	97.06%	33
2	No	2.94%	1
		Total:	34

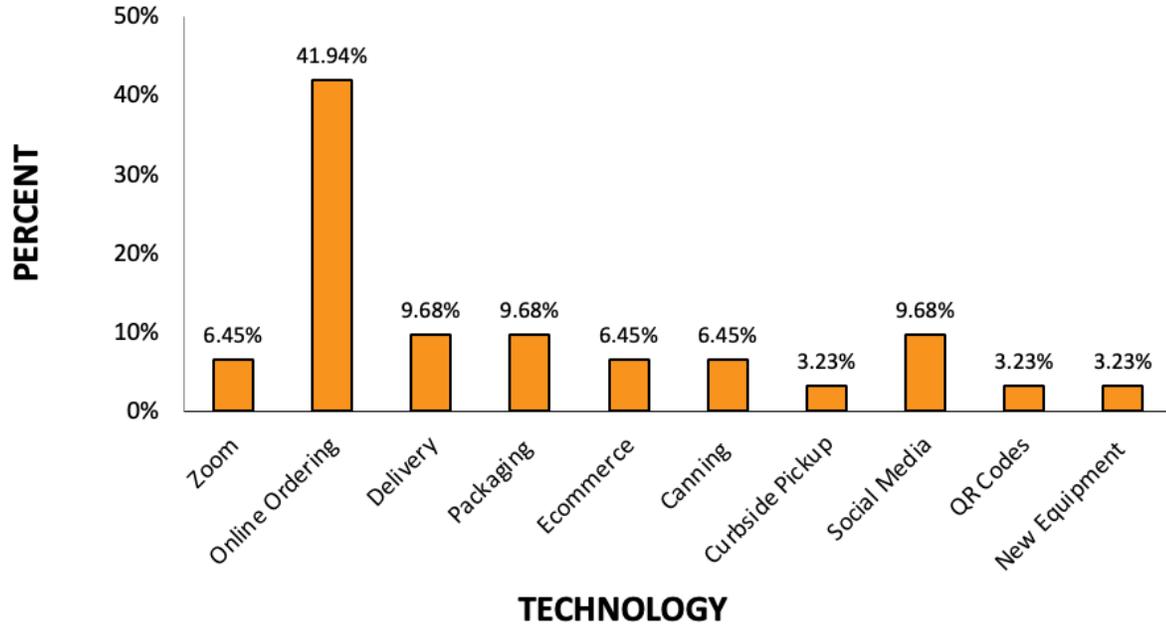
Q6. Has your business adopted new technologies in response to the pandemic?



	Answer	Percentage	Count
1	Yes	73.53%	25
2	No	26.47%	9
		Total:	34

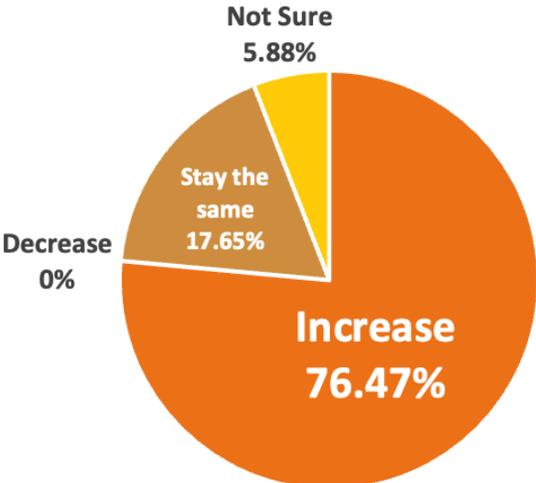
Q7. If you replied “yes” to Q6, what new technologies have your business adopted?

Adopted Technologies in Response to Pandemic



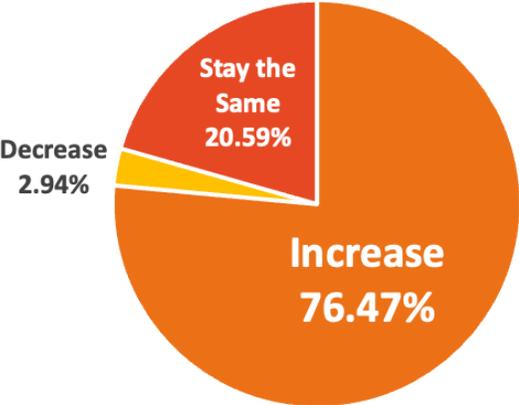
	Answer	Percentage	Count
1	Zoom	6.45%	2
2	Online Ordering	41.94%	13
3	Delivery	9.68%	3
4	Packaging	9.68%	3
5	Ecommerce	6.45%	2
6	Canning	6.45%	2
7	Curbside Pickup	3.23%	1
8	Social Media	9.68%	3
9	QR Codes	3.23%	1
10	New Equipment	3.23%	1
		Total:	31

Q8. In the next 6 months, you expect the price of raw materials for your business to:



	Answer	Percentage	Count
1	Increase	76.47%	26
2	Decrease	0.00%	0
3	Stay the Same	17.65%	6
4	Not Sure	5.88%	2
		Total:	34

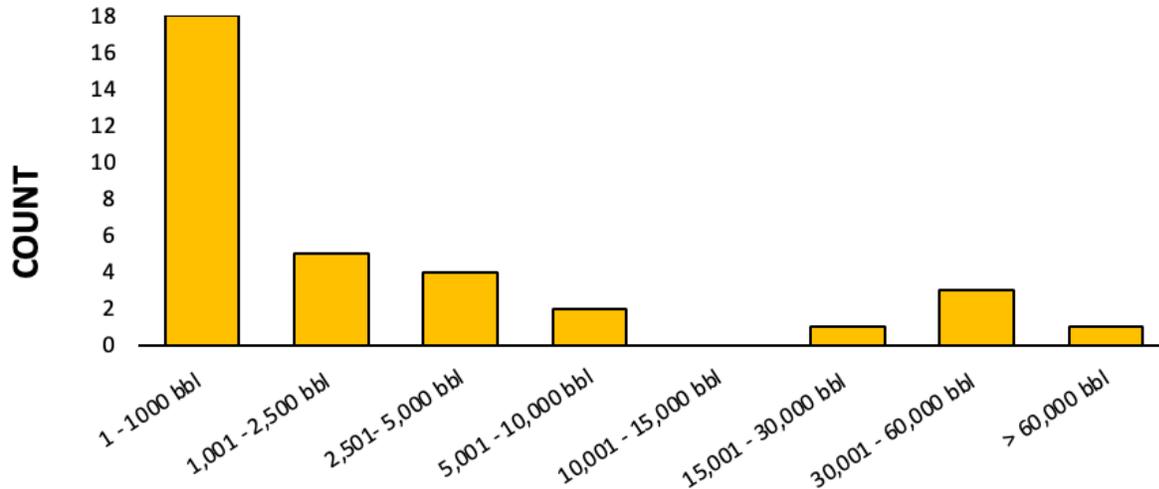
Q9. In the next 6 months, your brewery expects distribution to:



	Answer	Percentage	Count
1	Increase	76.47%	26
2	Decrease	2.94%	1
3	Stay the Same	20.59%	7
		Total:	34

Q10. In the past 12 months, what was your brewery’s barrelage approximately?

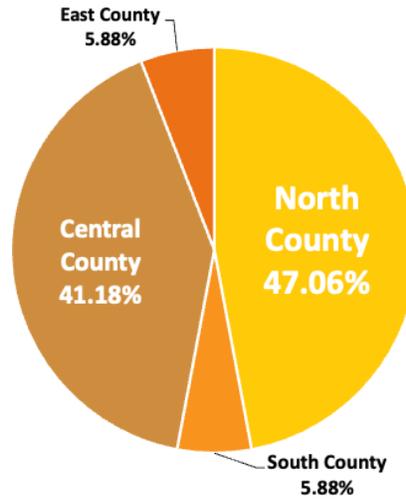
Brewery Beer Barrelage in the Past 12 Months



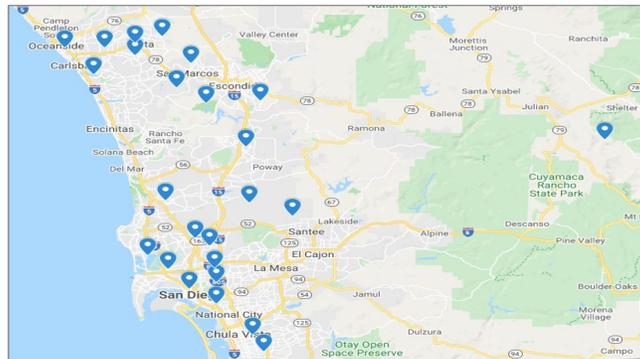
BEER VOLUME IS MEASURED IN BARRELS (BBL)

	Answer	Percentage	Count
1	1 - 1000 bbl	52.94%	18
2	1,001 - 2,500 bbl	14.71%	5
3	2,501- 5,000 bbl	11.76%	4
4	5,001 - 10,000 bbl	5.88%	2
5	10,001 - 15,000 bbl	0.00%	0
6	15,001 - 30,000 bbl	2.94%	1
7	30,001 - 60,000 bbl	8.82%	3
8	> 60,000 bbl	2.94%	1
		Total:	34

Q11. Please input your business zip code:



Answer	Percentage	Count
North County	47.06%	16
South County	5.88%	2
Central County	41.18%	14
East County	5.88%	2
	Total:	34



Appendix N
Historical Business Confidence Indices - Craft Beer

Spring 2017 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 12 months, how do you expect your staff levels to change?	94.65%	5.35%	0%	100%	97.33
5	In the next 12 months, what percentage of increase do you expect your total barrel production to increase by?	92.85%	7.14%	0%	100%	96.42
8	Over the next 12 months, does your brewery expects distribution to:	91.07%	8.93%	0%	100%	95.54
10	Over the next 12 months, do you expect your brewery's capital expenditures for brew production equipment to:	76.79%	23.32%	0%	100%	88.40

Spring 2017 Craft Brewing Business Confidence Index: 94.42

Fall 2017 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 12 months, how do you expect your staff levels to change?	84.74%	13.56%	1.69%	100%	91.52
5	In the next 12 months, what percentage of increase do you expect your total barrel production to increase by?	94.90%	3.39%	1.69%	100%	96.595
8	Over the next 12 months, does your brewery expects distribution to:	81.36%	16.94%	1.69%	100%	89.83
10	Over the next 12 months, do you expect your brewery's capital expenditures for brew production equipment to:	81.36%	18.63%	0.00%	100%	90.675

Fall 2017 Craft Brewing Business Confidence Index: 92.16

Spring 2018 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 12 months, how do you expect your staff levels to change?	86.36%	11.36%	2.27%	100%	92.04
5	In the next 12 months, what percentage of increase do you expect your total barrel production to increase by?	100%	0%	0%	100%	100
8	Over the next 12 months, does your brewery expects distribution to:	95.24%	4.76%	0%	100%	97.62
10	Over the next 12 months, do you expect your brewery's capital expenditures for brew production equipment to:	77.27%	22.73%	0%	100%	88.635

Spring 2018 Craft Brewing Business Confidence Index: 94.57

Fall 2018 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Over the next 12 months, by what percentage do you expect your total barrel production to increase by?	86.05%	13.95%	0%	100%	93.02
5	Over the next 12 months, you expect your overall employment to:	97.67%	2.33%	0%	100%	98.84
8	Over the next 12 months, your brewery expects distribution to:	74.42%	20.93%	4.65%	100%	84.88
10	Over the next 12 months, you expect your brewery's capital expenditures for brewing production equipment to:	81.40%	13.95%	4.65%	100%	88.37

Fall 2018 Craft Brewing Business Confidence Index: 91.28

Spring 2019 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
2	Over the next 12 months, by what percentage do you expect your total barrel production to increase by?	90.91%	7.27%	1.82%	100%	94.55
3	Over the next 12 months, you expect your overall employment to:	76.36%	21.82%	1.82%	100%	87.27
7	Over the next 12 months, your brewery expects distribution to:	78.85%	21.15%	0%	100%	89.42
8	Over the next 12 months, you expect your brewery's capital expenditures for brewing production equipment to:	81.82%	18.18%	0%	100%	90.91

Spring 2019 Craft Brewing Business Confidence Index: 90.54

Fall 2019 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
2	Over the next 12 months, by what percentage do you expect your total barrel production to increase by?	91.44%	8.57%	0%	100%	95.73
3	Over the next 12 months, you expect your overall employment to:	71.43%	25.71%	2.86%	100%	84.29
7	Over the next 12 months, your brewery expects distribution to:	71.43%	22.86%	2.86%	97.15%	82.86
8	Over the next 12 months, you expect your brewery's capital expenditures for brewing production equipment to:	82.87%	11.43%	5.71%	100%	88.59

Fall 2019 Craft Brewing Business Confidence Index: 87.86

Fall 2020 - Craft Brewing Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Over the next 6 months, your firm's total number of employees is likely to:	43.48%	47.83%	8.70%	100%	67.40
2	Over the next 6 months, your firm's sales revenue is expected to:	52.17%	21.74%	26.09%	100%	63.04
3	Over the next 6 months, your firm's profits are expected to:	47.83%	21.74%	30.43%	100%	58.70

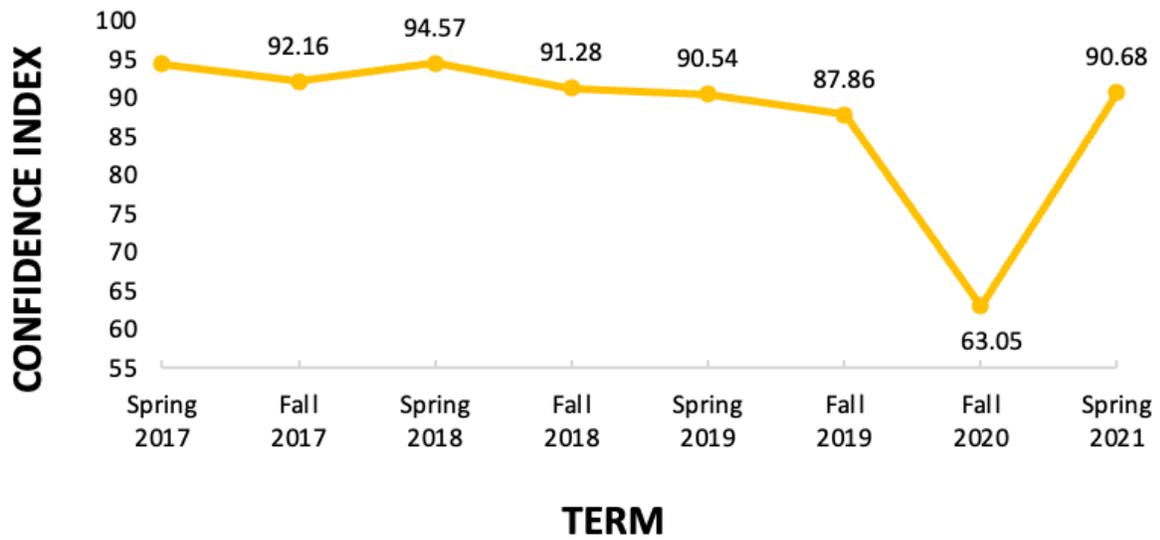
Fall 2020 Craft Brewing Business Confidence Index: 63.05

Spring 2021 - Craft Beer Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 6 months, your firm's total number of employees is expected to:	85.29%	11.76%	2.94%	100%	91.17
2	In the next 6 months, your firm's sales revenue is expected to:	94.12%	2.94%	2.94%	100%	95.59
3	In the next 6 months, your firm's profits are expected to:	82.35%	11.76%	5.88%	100%	85.29

Spring 2021 Craft Brewing Confidence Index: 90.68

Appendix O
 Business Confidence Index Trend - Craft Beer

Craft Beer Confidence Trend



Historical Data:

Term	Confidence Index
Spring 2017	94.42
Fall 2017	92.16
Spring 2018	94.57
Fall 2018	91.28
Spring 2019	90.54
Fall 2019	87.86
Fall 2020	63.05
Spring 2021	90.68

Appendix P
Final Survey Administered - Tourism and Hospitality

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied "yes" to Q6, what new technologies have your business adopted?

Q8. In the next 6 months, do you anticipate event attendance/visitor number in San Diego County to:

- Increase
- Decrease
- Stay the same

Q9. In the next 6 months, what do you feel will be most prioritized by visitors?

- Cleanliness/sanitation/COVID-19 compliance
- Rewards/discounts/price
- Customer service/experience/access to amenities

Q10. Please input your business ZIP code:

Appendix Q

Updates to Fall 2020 Survey - Tourism and Hospitality

Key: ~~Strike through~~ = removed
Red text = new

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. ~~Has your business received any Federal/State support in the form of loans or grants?~~

- ~~• Yes~~
- ~~• No~~
- ~~• Prefer not to answer~~

Q5. ~~If yes, what program(s)?~~

- ~~• CARES Act~~
- ~~• Small Business Relief Fund~~
- ~~• OnwardCA~~
- ~~• Other (please specify): _____~~

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied “yes” to Q6, what new technologies have your business adopted?

Q8. In the next 6 months, do you anticipate event attendance/visitor number in San Diego County to:

- Increase
- Decrease
- Stay the same

Q9. In the next 6 months, what do you feel will be most prioritized by visitors?

- Cleanliness/sanitation/COVID-19 compliance
- Rewards/discounts/price
- Customer service/experience/access to amenities

Q10. Please input your business ZIP code:

Appendix R
Appeal Letter - Tourism and Hospitality

Subject Line: CSUSM Students Need Your Assistance

Greetings,

Students of the College of Business Administration at California State University, San Marcos have been working to create a Business Confidence Index to be published in the San Diego Business Journal.

The goal of this index is to provide valuable metrics to the local business community regarding the current state and outlook of our regional economy. You can learn more about this project, see results from previous years, and discover industry trends here.

In addition, we will be distributing the findings to respondents once the report is complete. This is a unique opportunity to gauge the sentiment of competitors in your industry while also helping the San Diego business community at large.

This survey should take approximately 2-3 minutes to complete, and all answers will be recorded and published with complete anonymity.

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://csusm.co1.qualtrics.com/jfe/form/SV_dmbBExW3mgAzgvs

Thank you for taking the time to participate in the Business Confidence Index survey! Please complete the survey before April 11th, 2021.

Sincerely,

Jim Hamerly, Ph.D.

Dean, College of Business Administration California State University San Marcos

Barbara Chodos

President and Publisher, San Diego Business Journal

SAN DIEGO
BUSINESS
JOURNAL



WHAT'S THE OUTLOOK FOR HOSPITALITY IN SAN DIEGO?

Take our survey and we
will send you the results!

Find out where you stand
among competitors in
your industry.

Senior business students at California State University, San Marcos and the San Diego Business Journal are building a **Business Confidence Index** to determine the sentiment among local businesses. Your support is appreciated!



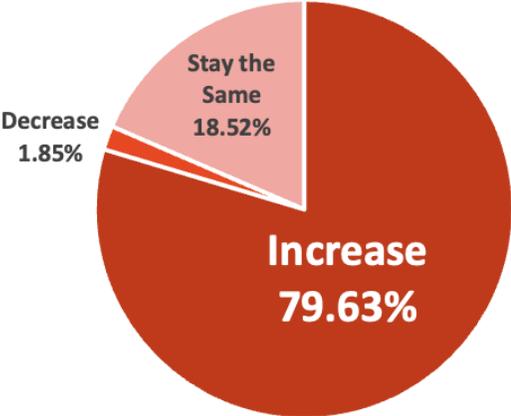
Copy the link below or use the QR code to take the survey:

https://csusm.co1.qualtrics.com/jfe/form/SV_dmbBExW3mgAzgvs



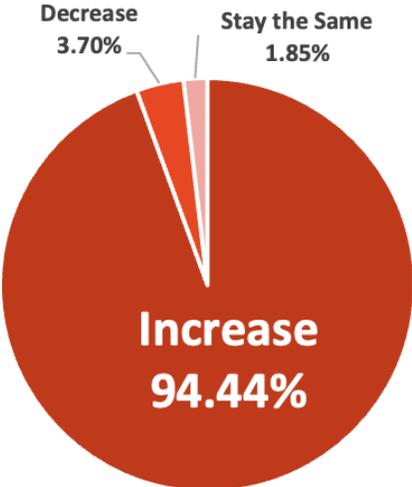
Appendix T
Final Survey Results - Tourism and Hospitality

Q1. In the next 6 months, your firm's total number of employees is expected to:



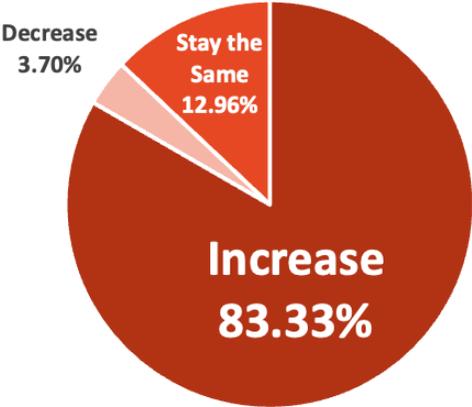
	Answer	Percentage	Count
1	Increase	79.63%	43
2	Decrease	1.85%	1
3	Stay the Same	18.52%	10
		Total:	54

Q2. In the next 6 months, your firm's sales revenue is expected to:



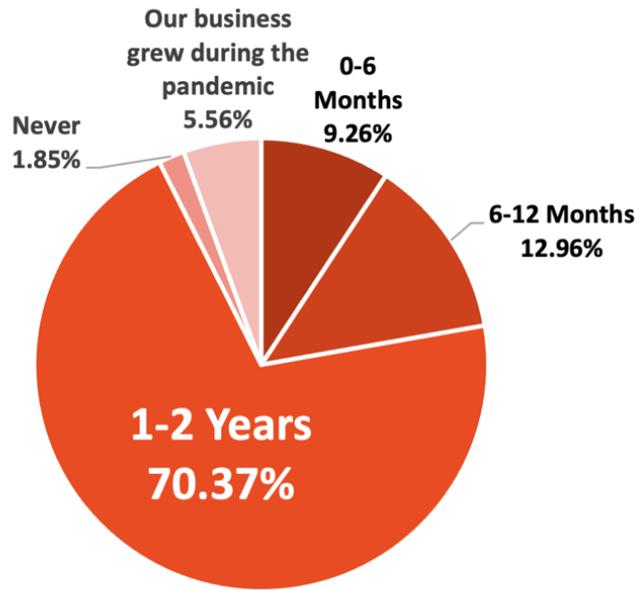
	Answer	Percentage	Count
1	Increase	94.44%	51
2	Decrease	3.70%	2
3	Stay the Same	1.85%	1
		Total:	54

Q3. In the next 6 months, your firm's profits are expected to:



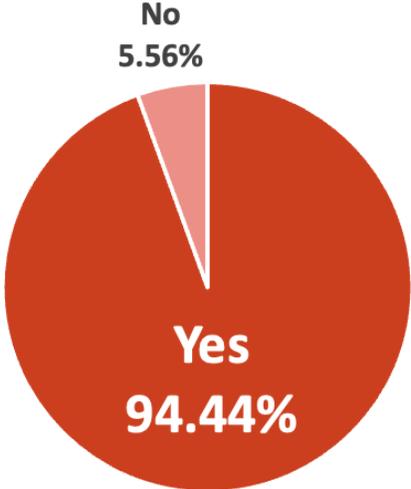
	Answer	Percentage	Count
1	Increase	83.33%	45
2	Decrease	3.70%	2
3	Stay the Same	12.96%	7
		Total:	54

Q4. When do you anticipate business will return to pre-pandemic levels?



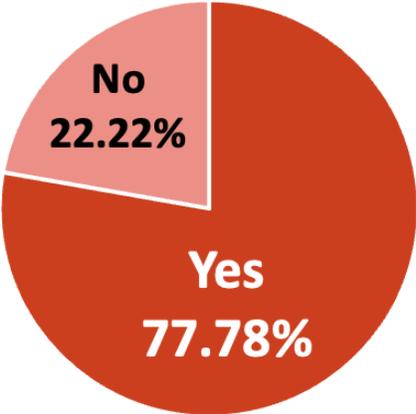
	Answer	Percentage	Count
1	0-6 Months	9.26%	5
2	6-12 Months	12.96%	7
3	1-2 Years	70.37%	38
4	Never	1.85%	1
5	Our business grew during the pandemic	5.56%	3
	Total:		54

Q5. Has your business strategy changed since the pandemic started?



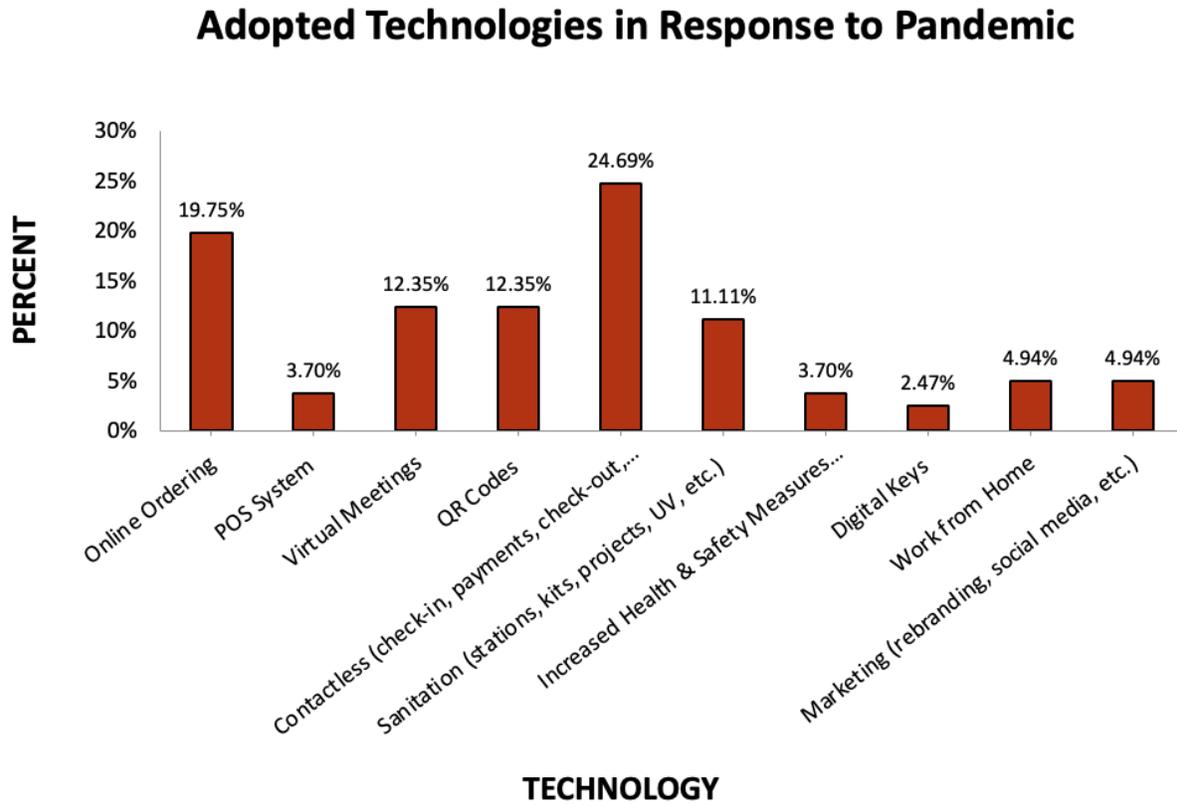
	Answer	Percentage	Count
1	Yes	94.44%	51
2	No	5.56%	3
		Total:	54

Q6. Has your business adopted new technologies in response to the pandemic?



	Answer	Percentage	Count
1	Yes	77.78%	42
2	No	22.22%	12
		Total:	54

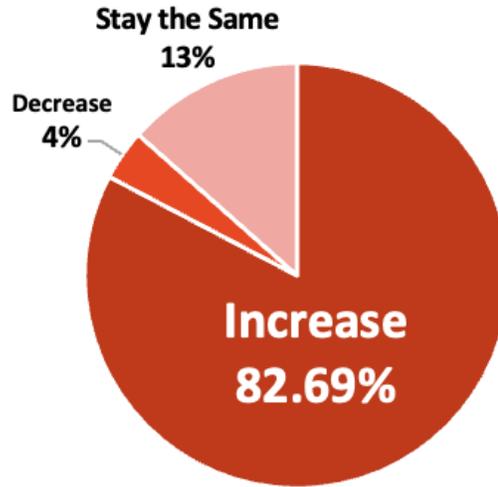
Q7. What new technologies have been adopted?



	Answer	Percentage	Count
1	Online Ordering	19.75%	16
2	POS System	3.70%	3
3	Virtual Meetings	12.35%	10
4	QR Codes	12.35%	10
5	Contactless (check-in, payments, check-out, etc.)	24.69%	20
6	Sanitation (stations, kits, projects, UV, etc.)	11.11%	9
7	Increased Health & Safety Measures (temp. screenings, etc.)	3.70%	3
8	Digital Keys	2.47%	2
9	Work from Home	4.94%	4
10	Marketing (rebranding, social media, etc.)	4.94%	4
		Total:	81

(Free Response Question; numbers do not equal the number of total responses from survey)

Q8. In the next 6 months, do you anticipate event attendance/visitor number in San Diego County to:



	Answer	Percentage	Count
1	Increase	82.69%	43
2	Decrease	3.85%	2
3	Stay the Same	13.46%	7
		Total:	52

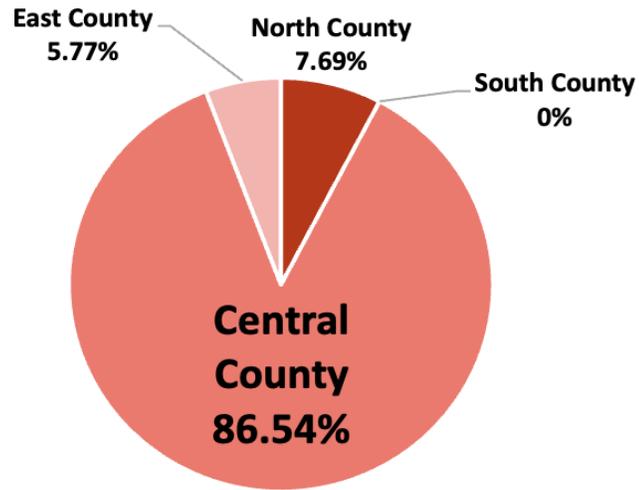
Q9. In the next 6 months, what do you feel will be most prioritized by visitors?



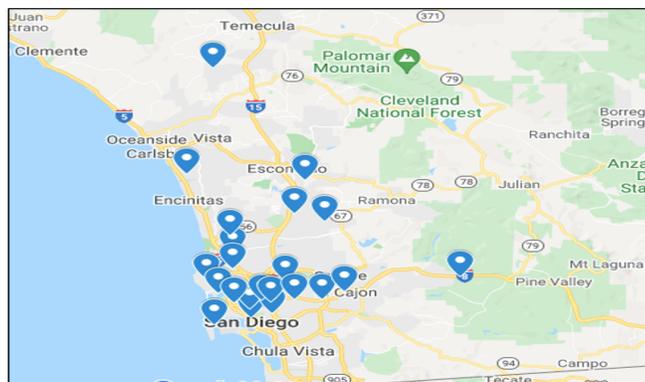
	Answer	Percentage	Count
1	Cleanliness, Sanitation, COVID-19 Compliance	36.62%	26
2	Rewards, Discounts, Price	21.13%	15
3	Customer Service, Experience, Access to Amenities	42.25%	30
		Total:	71

(Multiple answers allowed; total does not reflect the total responses of surveys taken)

Q10. Please input your business ZIP Code:



Answer	Percentage	Count
North County	7.69%	4
South County	0.00%	0
Central County	86.54%	45
East County	5.77%	3
	Total:	52



Appendix U
Business Confidence Indices - Tourism and Hospitality

Fall 2017 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Your outlook for the San Diego County tourism industry is generally:	86.67%	13.33%	0%	100%	93.34
3	In the next 12 months, your firm's profits are likely to:	70%	23.33%	6.67%	100%	81.67
5	In the next 12 months, you expect your employment levels to:	35%	56.67%	8.33%	100%	63.34
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	51.67%	48.33%	0%	100%	75.84

Fall 2017 Tourism Confidence Index: 78.55

Spring 2018 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Your outlook for the San Diego County tourism industry is generally:	87.76%	8.16%	4.08%	100%	91.84
3	In the next 12 months, your firm's profits are likely to:	81.63%	14.29%	4.08%	100%	88.78
5	In the next 12 months, your expect your employment levels to:	40.82%	53.06%	6.12%	100%	67.35
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	54.76%	38.10%	7.14%	100%	73.81

Spring 2018 Tourism Confidence Index: 80.45

Fall 2018 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Your outlook for the San Diego County tourism industry is generally:	95%	5%	0%	100%	97.50
3	In the next 12 months, your firm's profits are likely to:	40%	50%	10%	100%	65
5	In the next 12 months, your expect your employment levels to:	32.50%	62.50%	5%	100%	63.75
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	46.88%	46.88%	6.25%	100%	70.32

Fall 2018 Tourism Confidence Index: 74.14

Spring 2019 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
9	Your outlook for the San Diego County tourism industry is generally:	85.19%	14.81%	0%	100%	92.59
4	In the next 12 months, your firm's profits are likely to:	59.26%	25.93%	14.81%	100%	72.22
5	In the next 12 months, your expect your employment levels to:	18.52%	70.37%	11.11%	100%	53.70
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	44.44%	33.33%	22.22%	100%	61.11

Spring 2019 Tourism Confidence Index: 69.91

Fall 2019 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
9	Your outlook for the San Diego County tourism industry is generally:	20.00%	73.33%	6.67%	100%	56.67
4	In the next 12 months, your firm's profits are likely to:	27.78%	44.44%	27.78%	100%	50
5	In the next 12 months, you expect your employment levels to:	5.56%	61.11%	33.33%	100%	36.12
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	38.89%	38.89%	5.56%	100%	58.34

Fall 2019 Tourism Confidence Index: 50.28

Spring 2020 - Tourism Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
4	Over the next 12 months, your firm's profits are likely to:	14.29%	28.57%	57.14%	100%	28.58
5	Over the next 12 months, you expect your employment levels to:	0%	50.00%	50%	100%	25
6	In the next 12 months, do you anticipate event attendance/visitor numbers in San Diego County to:	0%	16.67%	83.33%	100%	8.34
10	Your outlook for the San Diego County tourism industry is generally:	42.86%	28.57%	28.57%	100%	57.15

Spring 2020 Tourism Confidence Index: 29.76

Fall 2020 - Tourism & Hospitality Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	Over the next 6 months, your firm's total number of employees is likely to:	21.05%	55.26%	23.68%	100%	48.68
2	Over the next 6 months, your firm's sales revenue is expected to:	39.47%	26.32%	34.21%	100%	52.63
3	Over the next 6 months, your firm's profits are expected to:	36.84%	23.68%	39.47%	100%	48.68

Fall 2020 Tourism and Hospitality Business Confidence Index: 50

Spring 2021 – Tourism and Hospitality Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 6 months, your firm's total number of employees is expected to:	79.63%	18.52%	1.85%	100%	88.89
2	In the next 6 months, your firm's sales revenue is expected to:	94.44%	1.85%	3.70%	100%	95.37
3	In the next 6 months, your firm's profits are expected to:	83.33%	12.96%	3.70%	100%	89.81
8	In the next 6 months, do you anticipate event attendance/visitor number in San Diego to:	82.69%	13.46%	3.85%	100%	89.42

Spring 2021 Tourism and Hospitality Confidence Index: 90.87

Appendix V

Business Confidence Index Trend - Tourism and Hospitality



Historical Data:

Term	Confidence Index
Fall 2017	78.55
Spring 2018	80.45
Fall 2018	74.14
Spring 2019	69.91
Fall 2019	50.28
Spring 2020	29.76
Fall 2020	50
Spring 2021	90.87

Appendix W
Final Survey Administered - Biotechnology and Medical Devices

Q1. In the next 6 months, your firm's total number of employees is expected to:

- Increase
- Decrease
- Stay the same

Q2. In the next 6 months, your firm's sales revenue is expected to:

- Increase
- Decrease
- Stay the same

Q3. In the next 6 months, your firm's profits are expected to:

- Increase
- Decrease
- Stay the same

Q4. When do you anticipate business will return to pre-pandemic levels?

- 0-6 months
- 6-12 months
- 1-2 years
- Never
- My business grew during the pandemic

Q5. Has your business strategy changed since the pandemic started?

- Yes
- No

Q6. Has your business adopted new technologies in response to the pandemic?

- Yes
- No

Q7. If you replied "yes" to Q6, what new technologies have been adopted?

Q8. In the past 12 months, has your investment in Research & Development (R&D):

- Increased

- Decreased
- Stay the same

Q9. In the next 12 months, you expect investment funding to:

- Increase
- Decrease
- Stay the same

Q10. The regulatory environment of our current presidential administration will:

- Help business
- Hurt business
- I do not expect regulation to impact our company

Q11. Please input your business zip code:

Appendix X
Appeal Letter - Biotechnology and Medical Devices:

Subject Line: CSUSM Students Need Your Assistance

Dear Bioscience Community Member,

Students of the College of Business Administration at California State University, San Marcos have been working to create a Business Confidence Index to be published in the San Diego Business Journal.

The goal of this index is to provide valuable metrics to the local business community regarding the current state and outlook of our regional economy. You can learn more about this project, see results from previous years, and discover industry trends here. This is the first semester our project will target the biotechnology industry and we are hoping for success so we can continue this effort in years to come!

In addition, we will be distributing the findings to respondents once the report is complete. This is a unique opportunity to gauge the sentiment of competitors in your industry while also helping the San Diego business community at large.

This survey should take approximately one minute to complete, and all answers will be recorded and published with complete anonymity.

Follow this link to the Survey:

[Take the Survey](#)

Or copy and paste the URL below into your internet browser:

https://csusm.co1.qualtrics.com/jfe/form/SV_723cbvm5daQF662

Thank you for taking the time to participate in the Business Confidence Index survey! Please complete the survey before **April 25th, 2021**.

Sincerely,

Jim Hamerly, Ph.D.

Dean, College of Business Administration California State University San Marcos

Barbara Chodos

President and Publisher, San Diego Business Journal

Appendix Y
LinkedIn Messaging Script - Biotechnology and Medical Devices

Message title: CSUSM Student – Referred by Dr. Moorthy Palanki

Hello,

I am a business student at California State University, San Marcos currently conducting a senior project. My team and I are working to produce a Business Confidence Index that will be published in the San Diego Business Journal to gauge the sentiment and economic outlook for businesses in our local region.

This year we are targeting the biotechnology/medical device industries and are in search of companies who will engage in our survey. We are primarily focused on companies that manufacture products, rather than provide services. Participants will complete a short two-minute survey and all answers will be recorded anonymously. We will also be sending the results to those who participate.

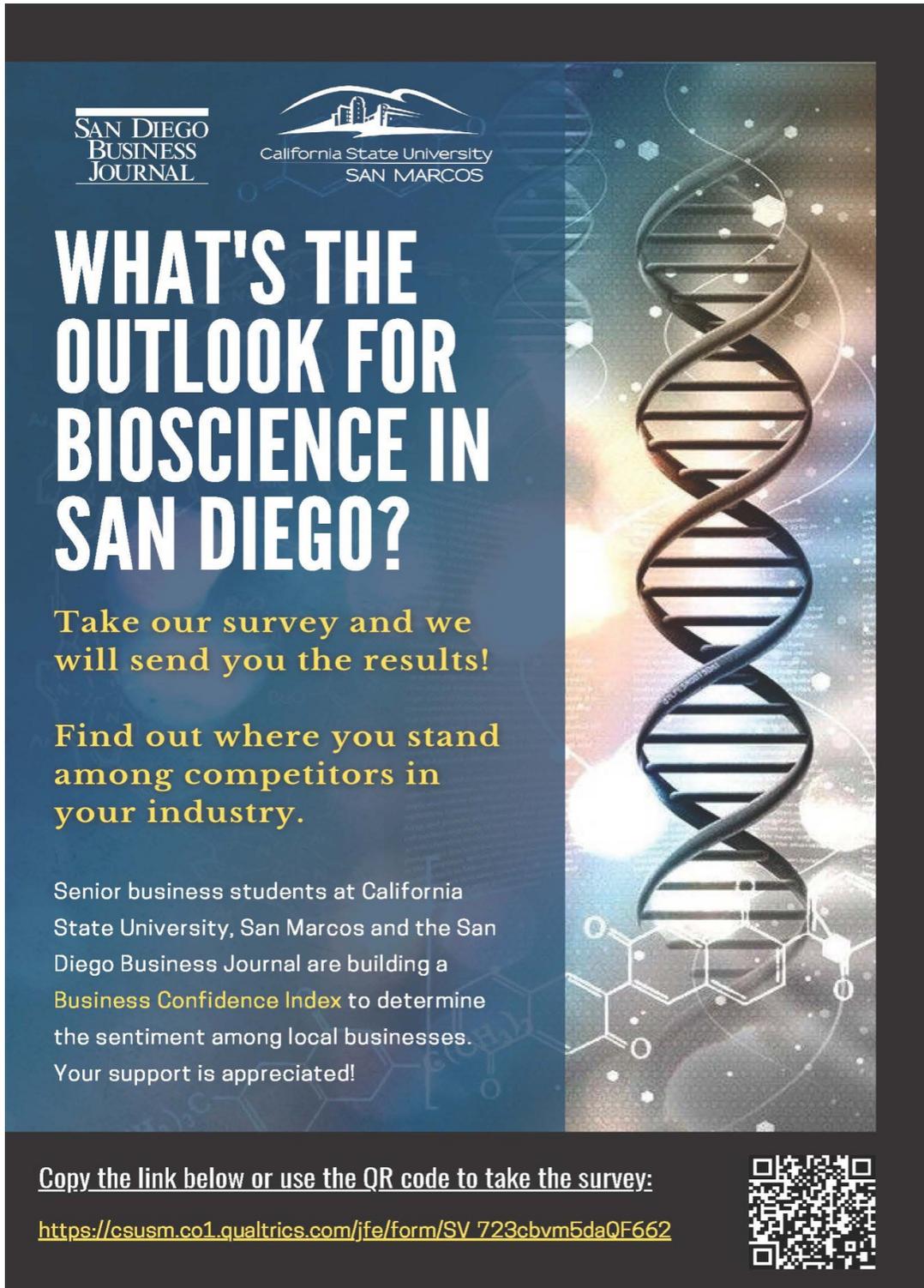
Dr. Moorthy Palanki of our STEM department advised us to reach out to his contacts in the bioscience community - we would greatly appreciate your support! Please let me know if you have any questions.

Thank you for taking the time to read my message and I look forward to your reply!

Regards,

Name

Appendix Z
Social Media Flyer - Biotechnology and Medical Devices



SAN DIEGO BUSINESS JOURNAL

California State University
SAN MARCOS

WHAT'S THE OUTLOOK FOR BIOSCIENCE IN SAN DIEGO?

Take our survey and we will send you the results!

Find out where you stand among competitors in your industry.

Senior business students at California State University, San Marcos and the San Diego Business Journal are building a **Business Confidence Index** to determine the sentiment among local businesses. Your support is appreciated!

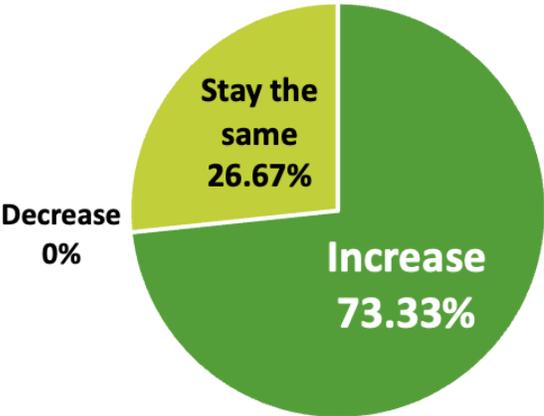
Copy the link below or use the QR code to take the survey:

https://csusm.co1.qualtrics.com/jfe/form/SV_723cbvm5daQF662



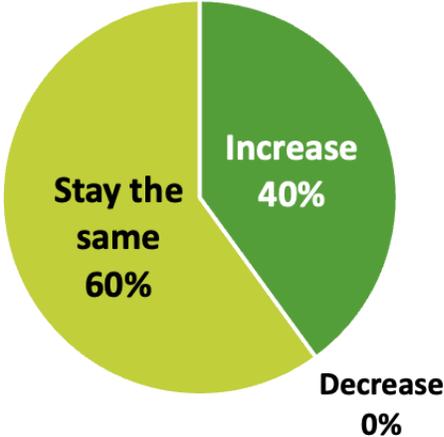
Appendix AA
Final Survey Results - Biotechnology and Medical Devices

Q1. In the next 6 months, your firm’s total number of employees is expected to:



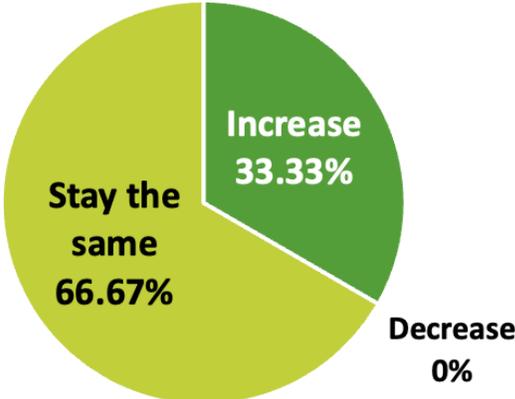
	Answer	Percentage	Count
1	Increase	73.33%	11
2	Decrease	0.00%	0
3	Stay the same	26.67%	4
		Total:	15

Q2. In the next 6 months, your firm's sales revenue is expected to:



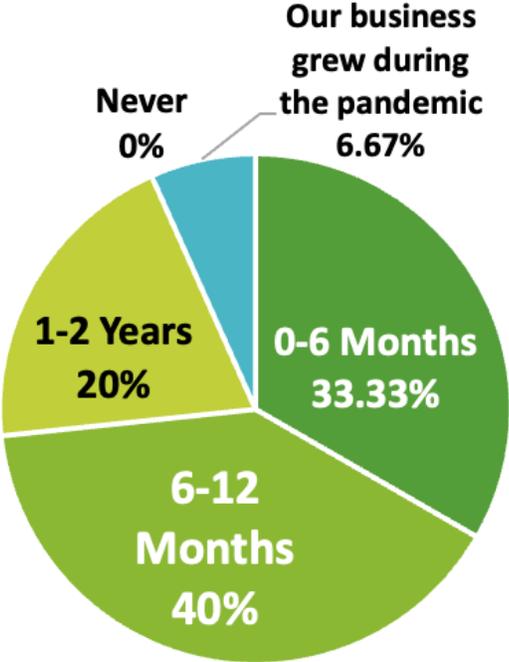
	Answer	Percentage	Count
1	Increase	40.00%	6
2	Decrease	0.00%	0
3	Stay the same	60.00%	9
		Total:	15

Q3. In the next 6 months, your firm's profits are expected to:



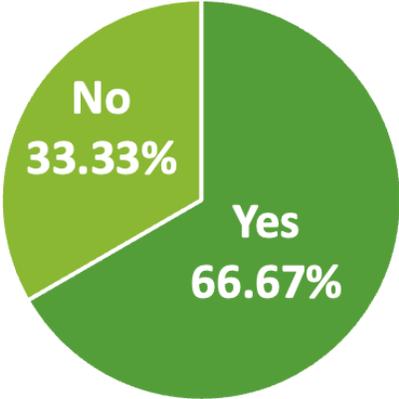
	Answer	Percentage	Count
1	Increase	33.33%	5
2	Decrease	0.00%	0
3	Stay the same	66.67%	10
		Total:	15

Q4. When do you anticipate business will return to pre-pandemic levels?



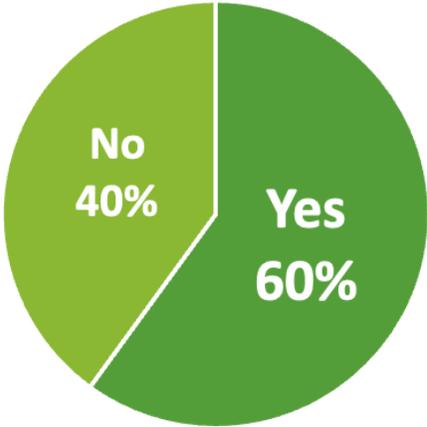
	Answer	Percentage	Count
1	0-6 Months	33.33%	5
2	6-12 Months	40.00%	6
3	1-2 Years	20.00%	3
4	Never	0.00%	0
5	Our business grew during the pandemic	6.67%	1
		Total:	15

Q5. Has your business strategy changed since the pandemic started?



	Answer	Percentage	Count
1	Yes	66.67%	10
2	No	33.33%	5
		Total:	15

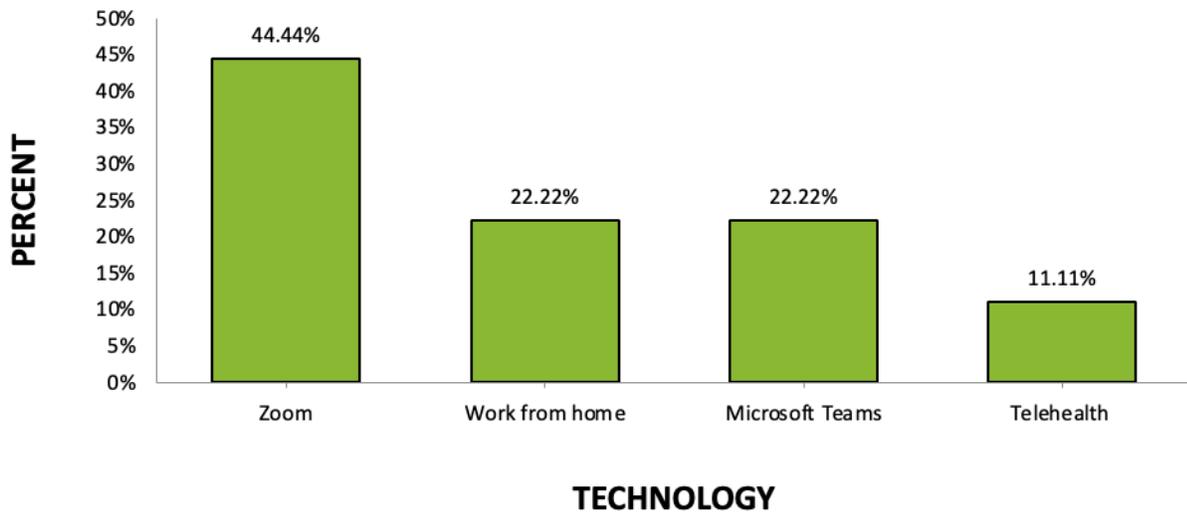
Q6. Has your business adopted new technologies in response to the pandemic?



	Answer	Percentage	Count
1	Yes	60.00%	9
2	No	40.00%	6
		Total:	15

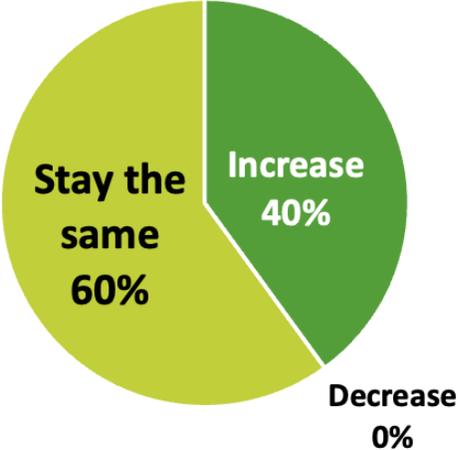
Q7. What new technologies have been adopted?

Adopted Technologies in Response to Pandemic



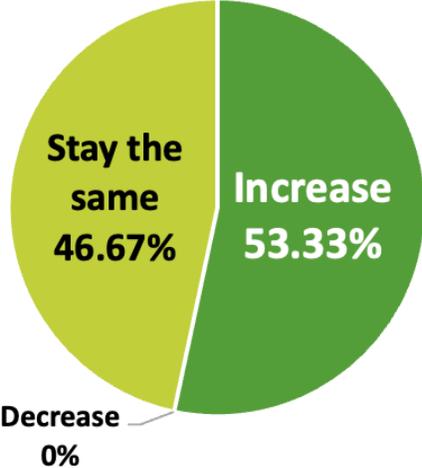
	Answer	Percentage	Count
1	Zoom	44.44%	4
2	Work from home	22.22%	2
3	Microsoft Teams	22.22%	2
4	Telehealth	11.11%	1
		Total:	9

Q8. In the past 12 months, has your investment in Research & Development (R&D):



	Answer	Percentage	Count
1	Increase	40.00%	6
2	Decrease	0.00%	0
3	Stay the same	60.00%	9
		Total:	15

Q9. In the next 12 months, you expect investment funding to:



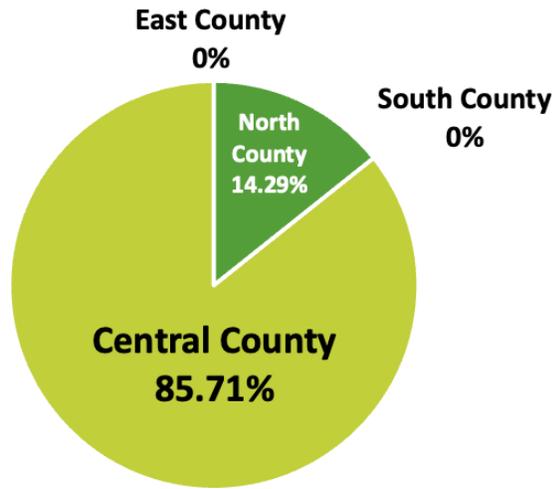
	Answer	Percentage	Count
1	Increase	53.33%	8
2	Decrease	0.00%	0
3	Stay the same	46.67%	7
		Total:	15

Q10. The regulatory environment of our current presidential administration will:



	Answer	Percentage	Count
1	Help Business	33.33%	5
2	Hurt Business	13.33%	2
3	I do not expect regulation to impact our company	53.33%	8
		Total:	15

Q11. Please input your business zip code:



Answer	Percentage	Count
North County	14.29%	2
South County	0.00%	0
Central County	85.71%	12
East County	0.00%	0
Total:		14



Appendix AB**Business Confidence Index - Biotechnology and Medical Devices**

Spring 2021 - Biotechnology & Medical Devices Confidence Index						
Question	Question Description	Increase	Stay the same	Decrease	Total	Index
1	In the next 6 months, your firm's total number of employees is expected to:	73.33%	26.67%	0.00%	100%	86.67
2	In the next 6 months, your firm's sales revenue is expected to:	40.00%	60.00%	0.00%	100%	70.00
3	In the next 6 months, your firm's profits are expected to:	33.33%	66.67%	0.00%	100%	66.67

Spring 2021 Biotechnology & Medical Devices Confidence Index: 74.44