FALL 2021 OVERVIEW



GUEST SPEAKERS

REGIONAL ECONOMIC INDICATORS FORUM

The Regional Economic Indicators Forum (REIF), sponsored by the National Bank of Commerce, focuses on the current economic performance of a 15-county region that includes Northeastern Minnesota and Northwestern Wisconsin. As part of this



forum, the College of St. Scholastica (CSS), University of Minnesota Duluth (UMD) and University of Wisconsin-Superior (UWS) collect and monitor data related to county-level economic performance, business and consumer confidence, and regional stock performance.

THE GOAL OF THE FORUM IS TO

- Support business owners in their business decisions by gathering key local economic indicators and trend information
- Develop specific economic indicators for this region that are not readily available to decision makers
- Develop tools to study our region's progress in economic growth, prepare baseline measures that allow for comparison and assess future progress
- Track the region's participation in the "new economy" and development in the high-tech arena
- Collect and monitor data related to county-level economic performance, business and consumer confidence and regional stock performance
- Bring professionals together with business owners for discussion about the local economy and related critical issues in a collaborative, non-political environment
- Create a business recruitment and retention tool by publishing the information

KATE POWERS is the senior sustainability specialist at Tennant Company. As part of the Sustainable Enterprise Team, she is responsible for leading the company's environmental, social, and governance strategy and reporting, including the annual sustainability report. She also supports waste reduction and recycling efforts across Tennant's global operations. She chairs the Tennant Foundation Volunteering Committee and co-leads TEAL, Tennant Company's women's group. Prior to her role with Sustainable Enterprise, Kate worked in supply chain supporting Tennant's aftermarket warehouse in Louisville, Kentucky, and production facility in Golden Valley, Minnesota. Before joining Tennant in 2015, Kate worked at Valspar, building the indirect procurement teams at both the global headquarters in Minneapolis and the European headquarters in Zurich, Switzerland. Kate also spent time at the U.S. Compliance Corporation as an environmental compliance consultant focusing on stormwater, industrial discharge, and hazardous waste management.

Kate attended the School of Environmental Studies in Apple Valley, Minnesota, which inspired her to study sustainability and business. Kate earned her B.S. and B.S.B. from the University of Minnesota Twin Cities in Corporate Environmental Management and Operations Management. She returned to the U of M and earned her MBA from the Carlson School of Management. Outside of her career, Kate enjoys traveling with friends and family and spending weekends at her family cabin in north central Wisconsin snowshoeing and paddle boarding.

NATHAN NISSEN is principal engineer, sustainability for Kohler Co. Nathan was on the team that developed the first Kohler Co. sustainability strategy in 2007 and has led footprint reporting activities and coordinated footprint reduction activities since then.

Since Kohler's baseline year of 2008, the company has reduced energy use by 22%, greenhouse gas emissions by 48%, water intake by 46%, and waste-to-landfill by 47% (all per sales \$). In 2020, 53% of Kohler's electricity came from renewable sources; over \$1 billion of its product sales were from environmentally favorable products; and 1.3 million lives were positively impacted by its safe-water and sanitation initiatives.

Nathan has a Bachelor of Science in chemical engineering from the University of Minnesota. He is an amateur beekeeper and a licensed professional engineer.

JENNA KUNDE is director, global sustainability for Johnson Controls, a global leader for smart, healthy and sustainable buildings. She directs enterprise-level sustainability programs, global sustainability reporting, thought leadership and stakeholder engagement. She is honored to be part of a company that is recognized for sustainability leadership including being named one of the Global 100 Most Sustainable Corporations, achieving climate leadership level from CDP, and rated AAA by MSCI for Environmental, Social and Governance.

At Johnson Controls, she led the climate-related risks and opportunities assessment with leaders around the company and the Sustainability Materiality Assessment. She is the president of the Global Sustainability Network, Johnson Controls' sustainability business resource group, with members from 39 countries from all regions of the world. She serves on the Global Sustainability Council, the LifeCycle Assessment Working Group, the Zero Landfill Certification review committee, the OpenBlue Healthy Planet Working Group, and the Company Purpose Working Group. She also works with communications to tell Johnson Controls' sustainability stories, with finance on sustainable finance agreements, and with teams around the company to ensure streamlined engagement across diverse business functions to deliver on the enterprise sustainability strategy.

EXECUTIVE SUMMARY

Twice each year, students from the University of Minnesota Duluth (UMD), the University of Wisconsin-Superior (UWS), and the College of St. Scholastica (CSS) join efforts to conduct research on the economic performance of the 15-county region surrounding the Twin Ports (the REIF region). This summary provides information on the results of the three schools' research, including a special focus on the changing demographics of the region, a glimpse into local consumer confidence, an analysis of regional stock performance, and survey results on business confidence and hiring practices.

UMD's research team analyzed recent data on the region's population, racial demographics, labor force, unemployment rate, and employment by sector to learn more about the demographic trends in the 15-county region and the economic recovery since the start of the COVID-19 pandemic. Since 2010, ten counties in the REIF region gained population, while five counties lost population. The white population remained the largest race overall, but the percentage of the population that is white dropped. The COVID-19 outbreak that began in February 2020 sent shock waves through the local labor market, pushing the unemployment rate to near record highs and causing thousands of people to leave the labor force. A year later, a full recovery for the labor market is still distant. While the unemployment rate had returned to relatively normal levels by July 2021—only 0.7% higher than in July 2019—the region's labor force shrank considerably, with 9,537 fewer workers than pre-COVID-19 levels. Employment in the 15-county region was also significantly impacted. Employment in all sectors decreased from 2019 to 2021, with the exception of the education and health services sector.

The COVID-19 pandemic continues to shape the socio-economic well-being of people in the United States and the REIF region. Given this, it is important to determine the consumer confidence indicators to help predict the future economic conditions of the REIF region. The UW-Superior student research team (13 students) surveyed randomly chosen households in the 15-county REIF region and past REIF participants. Through telephone and email surveys, a total of 209 responses were collected during fall 2021. Using survey responses, three indices were computed: the Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Survey results in fall 2021 show that compared to spring 2021, consumers had a negative sentiment and a weakening outlook of the current state of the regional economy. However, compared to fall 2020, REIF region households have an improved outlook of the economy's current condition, a slightly positive sentiment, and unchanged expectations about future economic conditions.

A second UWS research team tracked the equity performance of companies of local interest in the 15-county region to create a Regional Equity Index (REI). The selection of the 15 firms for the Regional Equity Index (REI) is based on the firms' substantial presence in the REIF region as indicated by the number of employees hired locally or by the significance of the firms' regional activities to the REIF regional economy. Between October 2019 and October 2021, the REI showed a sharp downward turn in early 2020 due to COVID-19 but, thereafter, gradually recovered to reach new highs. The overall REI significantly outperformed relative to the S&P 400 during the period, but there was a divergence among sectors; some sectors like materials and energy lagged behind the market, while other sectors like communications, technology, healthcare, and financial services showed above average performance. According to the Value Line® short-term expectations of future performance for the next one to two quarters, most of the fifteen stocks in the REI are expected to outperform or mirror the overall stock market.

The research team at CSS distributed surveys to local chambers of commerce members to develop a better understanding of business confidence in the regional economy. In total, 76 businesses completed the survey. In an upturn from last spring, 52% of businesses reported improved business activity (compared with 38% in April 2021), and only 12% reported decreased activity (down from 37% last spring). Businesses were then asked to forecast activity for the next six months based on the same criteria. Of the businesses surveyed, 32% are confident that business activity will improve in the next six months (compared to 68% last spring), and 15% expect decreases in activity (up from 5% last spring).



STUDENT PRESENTERS

Grant Garding is a University of Wisconsin-Superior (UWS) senior, who is double majoring in Economics and Finance. Grant is a UWS McNair Scholar. He also is the vice president of the Stimulus Club and the SBE Event Planning Committee on campus. He joined the REIF team to enhance his data analysis skills and knowledge of the local economy. After graduation, Grant is interested in working as a financial or credit analyst.



Rachel Toscano is a senior at the College of St. Scholastica (CSS), majoring in finance. Currently studying abroad in London, England, Rachel will graduate in December. Rachel was the president of St. Scholastica's investment club and an active member of the Circle K volunteer group. She interned with Charles Schwab and The Walt Disney World Company. Rachel joined the REIF team in fall of 2021 as head researcher.



Augusto Vladusic is double majoring in Economics and Business Administration (Finance Concentration) at UWS and graduating in spring 2022. He was awarded a UWS summer undergraduate research fellowship in 2021 to work on his study entitled "Education Influence on Perceived Happiness for the United States between 2005 and 2020." Augusto was born in Berkeley, California, and grew up in Buenos Aires, Argentina.



Daniel Ye, a senior with a double major in Economics and Statistics and an undergraduate research assistant (UGRA) at UMD's Bureau of Business and Economic Research (BBER), will be presenting on the economic and demographic trends in the 15-county region. During his time at the BBER, Daniel has been involved in various research projects, studying climate migration, trends in the residential housing market, and the impacts of social assistance programs on low-income workers. He graduates in May and is looking forward to gaining a competitive edge through a master's program in data science following graduation.

Student presentations can be viewed at https://youtu.be/aj-l_IKpB9g

UNIVERSITY OF MINNESOTA DULUTH DEMOGRAPHIC AND ECONOMIC TRENDS IN THE 15-COUNTY REGION

Monica Haynes, M.S., Director of the Bureau of Business and Economic Research (BBER), University of Minnesota Duluth **Student Researcher:** Daniel Ye

To provide greater insight into the regional demographic trends and the economic recovery since the start of the COVID-19 pandemic, UMD was asked to analyze secondary data for the 15-county region. Specifically, UMD analyzed the percentage change in population by county over the past 10 years, changes in the labor force, the unemployment rate from 2019 to 2021, and the employment change in all sectors for the seven Wisconsin counties and the eight Minnesota counties.

Figure 1 shows the changes in the size and distribution of the population from 2010 to 2020. The population of the whole region increased by 3,348 people during the ten-year period, growing at a rate of 0.7%. Ten counties saw their populations grow, while five counties lost population. In 2020, St. Louis County continued to have the most residents, with over 200,000 people. However, the county's population remained nearly unchanged from 2010, with an increase of only five people. The fastest-growing county was Sawyer, which grew 9.2% from 16,000 to 18,000 people. The most significant percentage decline occurred in Koochiching County, which saw a population decline of 9.4%.

The steady decline in the unemployment rate since its peak in October 2020 is a positive trend, but it is overwhelmed by the decline in the size of the labor force.

Figure 2 shows changes in the size of the labor force and the unemployment rate over the past three years. As shown in the figure, the labor force and the unemployment rate have gone through substantial changes since July 2019. The COVID-19 outbreak in February 2020 led businesses to suspend operations or close, resulting in a record number of temporary layoffs and a spike in unemployment. At the same time, large numbers of people departed the labor force. In October 2020, the labor force hit its lowest point, at roughly 232,000. Since October, the labor force has rebounded slightly, but the recovery is far from complete. In July 2021, there were still over 9,000 fewer people in the labor force compared to July 2019. The steady decline in the unemployment rate since its peak in October 2020 is a positive trend, but it is overwhelmed by the decline of the labor force. The official unemployment rate ignores workers who have lost hours or have given up looking for work and exiting the labor force entirely.

Finally, **Figure 3** shows the percentage change in employment over the past three years for the 11 super sectors in the 15-county region. The education and health services sector employs the most people, representing about 22% of total employment. It is also the only sector that has seen an increase in employment since 2019. All other sectors saw declines in employment, but the leisure and hospitality sector had the most significant decline— at over 40%. One positive development that is not shown in the figure is with regard to the number of self-employed workers in the region. Over half of the sectors saw an increase in the numbers of people identifying as self-employed between 2019 and 2021. The trade, transportation, and utility sector (which includes wholesale trade, retail trade, and all transportation-related businesses) saw the most significant increase. In 2021, the percentage of self-employment in that sector accounted for 5.2% of all employment, at over 1,900 people—an increase of 18% since 2019.

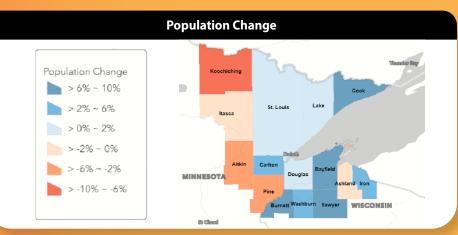
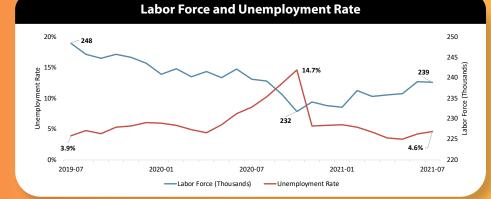
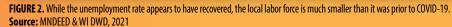


FIGURE 1. Ten counties saw population growth, while five counties lost population. Source: U.S. Census Bureau, 2021





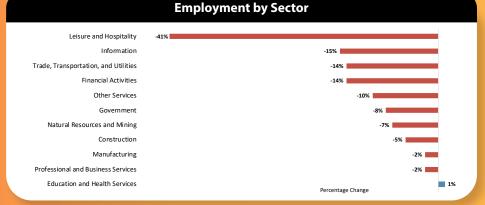


FIGURE 3. Employment in all sectors has decreased since 2019, with the exception of the education and health services sector. Source: EMSI, 2021

UNIVERSITY OF WISCONSIN - SUPERIOR CONSUMER CONFIDENCE INDICATORS: PREDICTING THE BUSINESS CYCLE

Rubana Mahjabeen, Ph.D., Associate Professor of Economics, University of Wisconsin-Superior; Praopan Pratoomchat, Ph.D., Assistant Professor of Economics, University of Wisconsin-Superior

Student Researchers: Casey Damberg, Arianne Daza Cortez, Grant Garding, Gianluca Marcucci, Chiyono Owa, Troy Quinn, Burhanuddin Saria, Ismael Tounkara, Augusto Vladusic, Breanna Wienen, Xiaoling Wu, Chunjiang Zhu, and Connor Zulkosky.

During the COVID-19 pandemic, it is extremely important to capture how consumers feel about the economy. To equip decision makers with tools enabling them to anticipate the forthcoming fluctuations in the economy, economists developed consumer confidence indicators. These are comprised of three indices: the Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Generally speaking, the ICS measures the consumer outlook on finances, business, and consumption spending. The ICC measures how the consumer feels about the current state of the economy. The ICE is a leading indicator and used for business cycle forecasting, as it reflects the consumers' outlook on future economic and financial conditions. In order to construct these indicators, the University of Wisconsin-Superior student research team surveyed households in the 15-county REIF region. In fall 2021, using telephone and email surveys, randomly chosen households and previous REIF participants were surveyed. In total, 209 responses were collected.

For details on the methodology and survey questions CLICK HERE

Data were collected from the beginning of September to mid October 2021. During this time, the regional economy was experiencing an increasing number of COVID-19 cases, deaths, and vaccinations against the virus. The results of the 15-county regional consumer confidence indices based on phone and email surveys are presented in **Figure 4.** These results show that in fall 2021 all three indices were facing a downward trend. In spring 2021, there was an indication that REIF-region consumers probably crossed a turning point and became more hopeful about the regional economy. However, compared to spring findings, households in fall 2021 had a pessimistic outlook on personal finances, business conditions, and consumption spending (ICS); thought the current condition of the regional economy was slowing down (ICC); and were slightly concerned about the future economic expansion (ICE) of the REIF region. Now, compared to one year ago, fall 2020, survey results showed no significant change regarding consumer sentiment (ICS) and expectations about the state of the regional economy (ICE). The only indicator that showed slight improvement is the consumer outlook of the current state of the economy. Overall, it is evident that consumer confidence in the REIF region is still low and not yet back to the pre-pandemic level.

REIF-region consumers have a pessimistic outlook and think that the current condition of the regional economy is weakening.

When compared to the national consumer confidence indicators reported by the University of Michigan, at both the national level and in the REIF region, consumer sentiment bounced back in spring 2021 but took a downturn in fall 2021. This is probably due to the surge of the COVID Delta variant and inflationary pressure. The labor market shortage, disrupted supply chains, and other pandemic-related reasons prompted consumers to be very cautious. Consumer sentiment and the outlook on the current economy are not yet at the pre-pandemic level—for both regional and national consumers. When compared to the year-to-year changes in the national consumer confidence indicators to the REIF-region indicators, consumers of the regional economy had more improved confidence in the regional economy as opposed to the national consumers in the U.S. economy (**Table 1**).

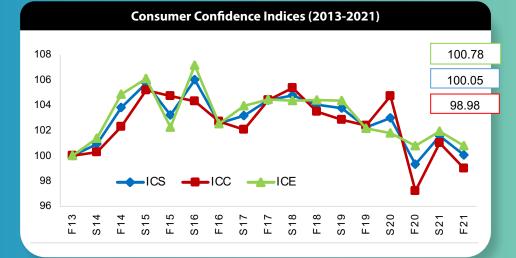


FIGURE 4. Consumer confidence in the REIF region remains low and is not yet back to the pre-pandemic level. Source: UWS Consumer Confidence Survey

Consumer Confidence Indicators

	Year-to-Year Percentage Change in Indice		Spring 2021 to Fall 2021 Percentage Change Indices	
Indicators	REIF Region Survey (Fall 2020- Fall 2021)	National Consumer Confidence Indicators (October 2020- October 2021)	REIF Region Survey (Spring 2021- Fall 2021)	National Consumer Confidence Indicators (March 2021- October 2021)
Index of Consumer Sentiment	0.73	-12.71	-3.48	-15.90
Index of Current Conditions	1.85	-9.31	-8.14	-16.24
Index of Consumer Expectations	0.00	-15.15	-0.22	-15.68

TABLE 1. Confidence levels have improved more among consumers in the regional economy than among national consumers. Source: UWS Consumer Confidence Survey and Survey of Consumers by University of Michigan

UNIVERSITY OF WISCONSIN - SUPERIOR REGIONAL EQUITY INDEX: AN ANALYSIS OF THE EQUITY PERFORMANCE OF STOCKS OF LOCAL INTEREST

Sakib Mahmud, Ph.D., Associate Professor of Sustainable Management and Economics, University of Wisconsin-Superior; David Koslowsky, Ph.D., Assistant Professor of Finance, University of Wisconsin-Superior **Student Researchers:** Grant Garding, Ismael Tounkara, and Augusto Vladusic.

The purpose of this portion of the REIF research is to provide information and a financial analysis on the equity performance of companies of local interest in the fifteen REIF-region counties. The selection of the firms for the Regional Equity Index (REI) is based on the firms' substantial presence in the REIF region as indicated by the number of employees hired locally or by the significance of the firms' regional activities to the REIF regional economy. Using these selection criteria, fifteen firms were included in the index.

Industries in the communications, industrial, health care, and financial sectors have fared better compared to materials and energy industries, suggesting a K-shaped recovery.

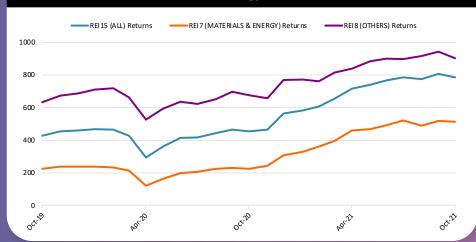
The findings show that the REI has outperformed the benchmark index, but investors have mixed expectations for some of the stocks. Between October 2019 and October 2021, the REI experienced a sharp downward turn in early 2020 due to COVID-19 but, thereafter, gradually recovered to reach new highs. **Figure 5** shows that the overall REI had significantly outperformed relative to the S&P 400 during the period. Comparing the REI and S&P 400 values since the last report (March 1, 2021), the REI compound return is 20.0%; whereas, the S&P 400 compound return is only 4.7%. In **Figure 6**, the REI companies that fall under materials and energy industry categories (REI7) underperformed the rest of the industries (REI8) in last two years. Between March 2020 and October 2020, the REI7 had a somewhat bigger dip in response to COVID-19. And from November 2020 to October 2021, the REI7 recovered more slowly than the REI8, suggesting an overall K-shaped recovery of our region (i.e. industries in the communications, industrial, health care, and financial sectors fared better compared to materials and energy industries).

According to the Value Line[®] short-term expectations of future performance, most of the fifteen stocks in the REI are expected to outperform or mirror the overall stock market. For the next one to two quarters, four of the stocks are expected to outperform the market, six are expected to mirror the market, and five are expected to underperform the market. The Morning Star[®] measures show that the REI's Price-to-Earnings ratio was lower than in the prior spring report, implying that investors are expecting lower earnings growth. Of the companies that had data about the Forward Price-to-Earnings ratios, most are expecting to see growth in their earnings. Finally, the majority of the stocks have a short interest ratio less than five, an indication that investors believe stock prices will rise for these companies. The average short interest ratio of 3.96 for the REI index stocks, indicates that investor sentiment is bullish for the fifteen REI index stocks and that investors have positive short-term expectations of their performance.



Regional Equity Index, Midcap S&P 400, and Oil Futures (2019-2021)

FIGURE 5. The REI has outperformed relative to the S&P 400 since October 2019. Source: UW-Superior REI Analysis using Yahoo Finance data



REI All, REI Materials and Energy, and REI Other Industries

FIGURE 6. Since 2019, companies in the materials and energy industries (REI7) have underperformed relative to the rest of the industries (REI8). Source: UW-Superior REI Analysis using Yahoo Finance data

THE COLLEGE OF ST. SCHOLASTICA BUSINESS CONFIDENCE INDICATORS

Erica Henkel, CPA, MAcc, Assistant Professor of Finance and Economics, the College of St. Scholastica **Student Researcher:** Rachel Toscano

The College of St. Scholastica's research team distributed business confidence surveys to regional chambers of commerce and various businesses and organizations located throughout the 15-county REIF region. The survey's purpose was to develop a better understanding of local businesses and their confidence in the economy. The survey asked each business to indicate its sector, number of employees, recent and projected changes in business activity, and factors inhibiting growth. In addition, the survey asked targeted questions regarding employment and wages and salaries in our region.

In total, 76 businesses completed the survey. According to the results, the most common sectors were leisure and hospitality (n = 14), professional and business services (n = 12), education and health services (n = 12), and trade, transportation, and utilities (n = 11). Sixty percent of those surveyed had fewer than 20 employees, while 16% of respondents reported 100 or more employees.

Businesses were asked to evaluate their general business activity over the previous six months. In an upturn from last fall, 52% of businesses (n = 39) reported improved business activity (up from 38% in April 2021), and only 12% reported decreased activity (down from 37% last spring), as shown in **Figure 7**. About 36% also reported improved business environment, up from 30% last spring.

The shortage of qualified labor has now replaced COVID-19 as the primary factor limiting business activity.

After evaluating the previous six months, businesses were then asked to forecast activity for the next six months based on the same criteria (see **Figure 8**). Of the businesses that responded, 32% (n = 24) reported confidence that business activity will improve in the next six months (compared to 68% last spring), and only 14% expect decreases in activity (up from 5% last spring). Expectation of increasing profits continues to be cautiously positive, with 25% predicting increasing profits, and only 17% expecting decreases in profits. Over half of businesses expect worker hours to stay the same in the next six months, and 33% expect increases in worker hours, which reflects slowed growth compared to 40% expecting increases last spring. COVID-19 has been bumped down to the second largest factor limiting business activity, having been overtaken by the shortage of qualified labor, as shown in **Figure 9**.

The final survey questions examined how wages and benefits are changing, given the challenging hiring environment. The majority of surveyed businesses reported that they increased wages and salaries over the last six months (61% increased wages) and plan to continue doing so over the next six months, with 59% planning future increases. With respect to employee benefits, most employers reported no changes (71%) or planned changes (67%) in this area, while one-fourth (26%) reported they had already increased benefits or that they were planning future increases (30%).

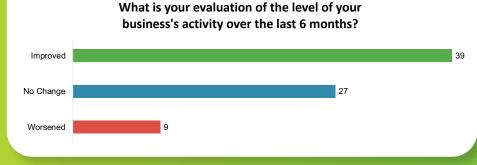


FIGURE 7. The majority of businesses reported improved business activity over the past six months. Source: CSS Fall 2021 Business Confidence Survey





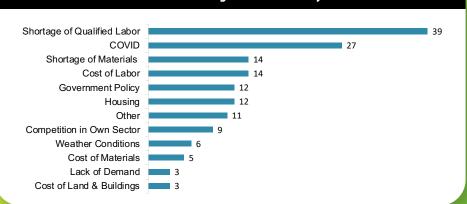


FIGURE 9. A shortage of qualified labor is now the primary factor limiting business activity. Source: CSS Fall 2021 Business Confidence Survey

Factors Limiting Business Activity

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Business Activity over the Last Six Months



SPRING EVENT SAVE THE DATE APRIL 5, 2022

7:00-9:30 am AT THE DECC IN THE HARBOR SIDE BALLROOM

STEERING COMMITTEE

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