SPRING 2021

OVERVIEW



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

GUEST SPEAKERS



AARON HAGAR, VP of Entrepreneurship & Innovation at Wisconsin Economic Development Corporation, leads the WEDC's efforts to support entrepreneurship skills, startup activity, investment capital, technology transfer, and next-generation employers through the Division of Entrepreneurship and Innovation. This division not only operates programs and partnerships that aim to support not

only businesses directly but also the ecosystem, support networks, and collaborations needed for a robust and vibrant economy. Aaron also sits on the boards of the Wisconsin Technology Council, the Brightstar Wisconsin Foundation, the Wisconsin Innovation Awards, and the Midwest Energy Research Consortium; all organizations working to support innovation-based economic development across Wisconsin.

Aaron's career started in bio-medical research before transitioning to economic development. He has worked on projects ranging from the immune system response to brain tumors to large-scale urban redevelopment. This diverse background provides him with a unique perspective on research, technology, entrepreneurship, policy and how these factors influence economic and community development. Aaron has a Bachelor of Science degree from UW Madison and a Master's in Urban and Regional Planning from The University of Minnesota.



NEELA MOLLGAARD, Executive Director of Launch Minnesota, is working to create an environment to support entrepreneurs and nurture tech startups with a goal of fostering an innovation ecosystem across the state that draws global attention, talent, and capital.

Launch Minnesota, started in 2019, is spearheaded by the Minnesota Department of Employment and Economic Development (DEED) in partnership with a statewide advisory board and private sector stakeholders.

Neela's career has involved bringing people together to create change. She has been a leader and facilitator of innovation across organizations and communities. Most recently, she served as a founder of the nonprofit Red Wing Ignite, which supports entrepreneurs, businesses, and students for success in the 21st-century economy. By forging partnerships with government, academic, corporate, and community partners, Red Wing Ignite developed an innovative ecosystem model that garnered national attention.

She has served in a variety of leadership roles with local organizations and nonprofits. She is a former member of the Governor's Task Force on Broadband and founder and chair of Women Cents, a nonprofit that supports children and families. Recently, Neela was named in Twin Cities Business Magazine's "TCB 100: The People to Know in 2020."

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 impacts of COVID-19 on the regional economy, 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 unemployment rates, wages, establishments, self-employment, and Paycheck Protection Program loans to learn more about the impacts from COVID-19 on the area's economic performance. In April of 2020, the unemployment rate spiked in response to the COVID-19 pandemic and the state's corresponding lockdown, reaching rates of 20.5% in the seven Wisconsin counties and 11.4% in the eight Minnesota counties. Since the initial spike in April 2020, unemployment rates have declined consistently, due largely to the decline in labor force participation during that time. During that period, all of the industries in the 11 super sectors for the 15-county region saw a decrease in employment, notably the leisure and hospitality, other services, and information sectors. Interestingly, nearly all these industries saw an increase in wages earned over the same period, likely the result of job losses among seasonal or entry level workers, While employment declined between 2019 and 2020, the number of establishments in the region increased slightly. This is a positive sign that existing businesses have not been forced to shut down permanently due to COVID-19.

The COVID-19 pandemic has created unprecedented social and economic circumstances for the people in the United States as well as in the REIF region. In this situation it is extremely important to determine the consumer confidence indicators to predict the future economic conditions of the REIF region. The UWS consumer confidence student research team, consisting of ten students, surveyed randomly chosen households in the 15-county REIF region and past REIF participants. Through telephone and email surveys, a total of 169 responses were collected during spring 2021. Using survey responses, three indices were computed: Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Survey results in spring 2021 show that compared to spring 2020, consumer sentiment and outlook on the current state of the economy are still below the pre-pandemic level. However, compared to fall 2020, REIF region households have an improved outlook of the current state of the regional economy, positive sentiment, and optimistic 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 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 are included in the index. The findings show that the REI outperformed the benchmark index and that investors have mixed expectations for the majority of the stocks. Between March 2019 and March 2021, the REI showed a sharp downward turn in early 2020 due to COVID but thereafter gradually recovered to reach new highs. The overall REI has significantly outperformed relative to the S&P 400 during the period, but there is a divergence among sectors; some sectors like materials and energy lag behind the market, while other sectors like communications, technology, healthcare, and financial services show above average performance. 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 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, 107 businesses completed the survey. In an upturn from last fall, 40% of businesses reported improved business activity (up from 30% in October 2020), and 40% reported decreased activity (down from 45%). Businesses were then asked to forecast activity for the next six months based on the same criteria. More than two-thirds of respondents (68%) reported confidence that business activity will improve in the next six months (up from 51% last spring), and only 5% expect decreases in activity (down from 25% last fall).

STUDENT PRESENTERS



Nicholas Anderson is a senior at The College of St. Scholastica (CSS), majoring in Finance and Accounting, with a minor in Economics. He is president of the school's Accounting club, active in student government, and plays the violin in CSS's string ensemble. Nicholas has interned with Hanft Fride law firm and the local public defender's office. He joined the REIF team in spring 2019 and has served as both assistant and head researcher in the past.



Isabel Becker is a junior at The College of St. Scholastica (CSS), majoring in Accounting with a minor in Music, and plans to work towards her Certified Public Accountant credential after graduation. She joined the REIF team this spring and is our assistant researcher. She hopes this experience will serve as a stepping-stone towards her goal of becoming an entrepreneur.



Grant Garding is a University of Wisconsin-Superior (UWS) junior double majoring in Economics and Finance. Grant is a McNair Scholar at UWS, as well as an officer of the Stimulus Club and the SBE Event Planning Committee on campus. He joined the REIF team to further his experience and knowledge of the local economy. After graduation, Grant is interested in working as a financial or credit analyst.



Pontus Tavemark is from Taeby, Sweden. He is double majoring in Economics and Finance at the University of Wisconsin-Superior. Pontus is graduating in spring 2021. He will present information on the Regional Equity Index.



Haakan Thorsgard is a senior Economics major at LSBE and an undergraduate research assistant at the Bureau of Business and Economic Research (BBER). At the BBER, Haakan has worked on numerous projects related to county, state, and international issues, including a comprehensive assessment of the economic impacts of the biofuels industry on Canada's economy. He graduates this May and plans to continue his education and pursue a J.D. in hopes of working in the area of natural resource and environmental law.

Student presentations can be viewed at https://bit.ly/2I2ChQ1

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UNIVERSITY OF MINNESOTA - DULUTH

HEALTH OF THE REGIONAL ECONOMY WITH A FOCUS ON COVID-19 IMPACTS

Monica Haynes, M.S., Director of the Bureau of Business and Economic Research (BBER) Student Researcher: Haakan Thorsgard

To provide greater insight into the recent changes to the regional economy as a result of COVID-19, UMD was asked to analyze secondary data for the 15-county region. Specifically, UMD analyzed unemployment rates for the seven Wisconsin counties and the eight Minnesota counties, COVID-19's effects on wages, and employment and establishment trends from 2015 to 2020.

Figure 1 shows the unemployment rate for the Wisconsin (blue line) and Minnesota counties (red line) in the 15-county region over the past three years. As shown in the figure, prior to the COVID-19 outbreak, the region was experiencing fairly normal seasonal fluctuations in its unemployment rate, ranging from 3% to 6% each year. Then, in April of 2020, the unemployment rate spiked in response to the COVID-19 pandemic and the state's corresponding lockdown, reaching rates of 20.5% in the seven Wisconsin counties and 11.4% in the eight Minnesota counties. Wisconsin's large spike in unemployment was due to large declines in employment in the education and health services, and leisure and hospitality sectors, both of which employ a large percentage of the Wisconsin counties' total employment. Since the initial spike in April 2020, unemployment rates have declined significantly. However, much of the decline in the unemployment rate is due to declines in labor force participation during that time.

While COVID-19 has had a devastating effect on employment in certain industries, very few businesses have been forced to close permanently.

Figure 2 shows the change in wages from 2019 to 2020 for the 11 super sectors in 15-county REIF region. While every industry saw a decline in employment from 2019 to 2020, almost all 11 industries experienced an increase in average wages, with the exception of the construction and natural resources and mining sectors. The "other services" and information sectors saw the largest increases in average wages. One explanation for the increase in wages could be due to the types of jobs lost during the COVID-19 pandemic. For example, if the majority of workers laid off were entry level or seasonal employees, the average wage would increase as high earners in these industries would have kept their jobs and skewed wages. Construction and natural resources and mining, the two industries that did not see increased wages, experienced total production freezes at the beginning of the COVID-19 pandemic, which may explain the lower wages for this period.

Finally, Figure 3 shows the number of people employed, and the number of establishments in the 15-county region from 2015 to 2020. Between 2015 and 2019 both the amount of people employed and the number of businesses increased steadily peaking in 2019 with 13,802 establishments and 199,098 employed individuals. Then, between 2019 and 2020 employment dropped to 183,284, while the number of establishments increased from 13,802 to 13,825. The increase in the number of establishments is a positive sign that COVID-19 has not forced businesses in the region to close permanently.

Unemployment Rate Wisconsin — Minnesota 2.9% 2.9% 2018 2019 2020

FIGURE 1. Wisconsin and Minnesota both saw spikes in unemployment rates in April of 2020 Source: MNDEED & WI DWD, 2021

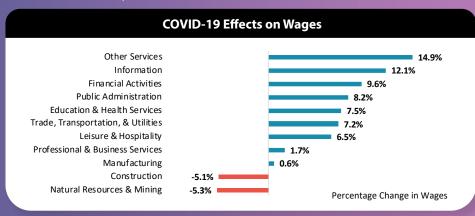


FIGURE 2. Almost all industries saw increases in wages from 2019 to 2020 due most likely to employment losses among lower wage earners. Source: MNDEED & WI DWD, 2021

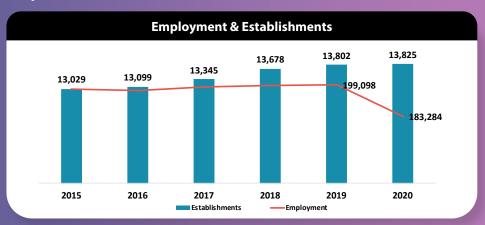


FIGURE 3. Employment decreased while the number of establishments slightly increased between 2019 and 2020. Source: MNDEED & Wi DWD, 2021

UNIVERSITY OF WISCONSIN - SUPERIOR

CONSUMER CONFIDENCE INDICATORS: PREDICTING THE BUSINESS CYCLE

Rubana Mahjabeen, Ph.D., Associate Professor of Economics, Praopan Pratoomchat, Ph.D., Assistant Professor of Economics **Student Researchers:** Munkhtulga Amarsanaa, Grant Garding, Ulrik Lager, Samuel Myszka, Chiyono Owa, Mackenzie Reykdal, Ismael Tounkara, Augusto Vladusic, Ryan Volz, and Breanna Wienen.

During normal times as well as difficult times (like, the 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 composed of three indices: the Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Generally speaking, the ICS is designed to gauge consumers' attitudes towards the business environment, personal finances, and consumption spending. The ICC is designed to gauge the current state of the economy. The ICE is 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 spring 2021, using telephone and email surveys, randomly chosen households and previous REIF participants were surveyed. Given the low response of email survey, in spring 2021 data of telephone and email surveys were combined. In total 169 responses were collected.

For details on the methodology and survey questions CLICK HERE

Findings of Consumer Survey: Data was collected from end of January to third week of March 2021 when the regional economy was experiencing steady rates of new COVID-19 cases along with an uptick in vaccinations against the virus. The results of the 15-county regional consumer confidence indices based on phone and email surveys are presented in **Table 1**. These results show that in spring 2021 all three indices are facing an upward recovery trend. Compared to spring 2020, when the initial spread of coronavirus started in the REIF region, households thought the current state of the economy (ICC) was weak and had negative sentiment about the regional business conditions (ICS). However, compared to fall 2020, survey results show that there has been a robust improvement regarding consumers' outlook of the current state of the regional economy (ICC). Additionally, positive sentiment (ICS) and optimistic expectations (ICE) about future economic conditions are visible. This is hopefully an indication that REIF region consumers have crossed a turning point and are feeling more positive about the regional economy.

Robust improvement in consumer outlook of current condition, but REIF region consumer sentiment is yet to be back at the pre-pandemic level.

When compared to the year-to-year changes in national consumer confidence indicators reported by the University of Michigan, the direction of index changes match with our findings on the regional consumer confidence indicators (Figure 4). Consumer sentiment is yet to be back at the pre-pandemic level. However, compared to fall 2020, both national and REIF region consumer confidence indices show that optimism is growing among households. This is probably due to the slowing down of new COVID-19 cases and increasing number of people receiving vaccination for the virus.

The improved outlook and rising positive sentiment are evident in REIF region household spending behavior as shown in **Figure 5**. A comparison between fall 2020 and spring 2021 shows continued household spending recovery compared to pre-pandemic levels.

Consumer Confidence Indicators

	Year-to-Year Percentage Change in Indice		Fall 2020 to Spring 2021 Percentage Change Indices	
Indicators	REIF Region Survey (Spring 2020- Spring 2021)	National Consumer Confidence Indicators (March 2020- March 2021)	REIF Region Survey (Fall 2020- Spring 2021)	National Consumer Confidence Indicators (October 2020- March 2021)
Index of Consumer Sentiment	-1.37	-6.85	2.25	1.47
Index of Current Conditions	-3.52	-11.76	3.95	6.52
Index of Consumer Expectations	0.14	-2.76	1.14	-2.15

TABLE 1. Consumer confidence down compared to one year ago, but up from last fall. **Source:** UWS Consumer Confidence Survey and Survey of Consumers by University of Michigan

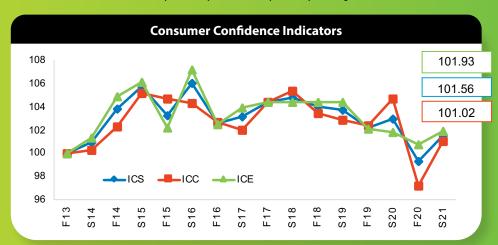


FIGURE 4. Consumer sentiment is yet to be back to pre-pandemic levels. **Source:** UWS Consumer Confidence Survey

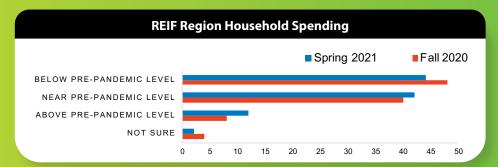


FIGURE 5. Most households report spending still below pre-pandemic levels. **Source:** UWS Consumer Confidence Survey

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, David Koslowsky, Ph.D., Assistant Professor of Finance **Student Researchers:** Michael Huttner, Sajid Chowdhury, Ramesh Shrestha, and Pontus Tavemark

The purpose of this portion of 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 are 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 outperformed the benchmark index and that investors had mixed expectations for the majority of the stocks. Between March 2019 and March 2021, the REI showed a sharp downward turn in early 2020 due to COVID but thereafter gradually recovered to reach new highs. **Figure 6** shows that the overall REI has significantly outperformed relative to the S&P 400 during the period. Comparing REI and S&P 400 values since the last report (October 1, 2020), the REI compound returns were up 30.81%; whereas the S&P 400 compound returns were up by 26.49%. In **Figure 7**, REIF companies that fell under materials and energy industry categories (REI-7) had underperformed the rest of the industries (REI-8) in the last two years. Between March 2020 and October 2020, the REI-7 had a somewhat bigger dip in response to COVID-19. From November 2020 to March 2021, the REI-7 has recovered more slowly than REI-8 for an overall K-shaped recovery. The K-shaped recovery refers to the fact that certain industries (e.g. communications, industrial, health care, and financial sectors) fared better than others (e.g. materials and energy). 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 is lower than last year, implying that investors are expecting lower earnings growth. Of the companies that had data about the Forward Price-to-Earnings ratios, the earnings of the majority of them are expected to grow. The Short Interest ratio shows that investors have higher short-term expectations of performance of the fifteen REI index stocks. A majority of the stocks have a short interest ratio less than five, an indication that investors believe stock prices will rise for these companies. Overall, investor sentiment is bullish, as indicated by the average short interest ratio of 2.72 for the REI index stocks.

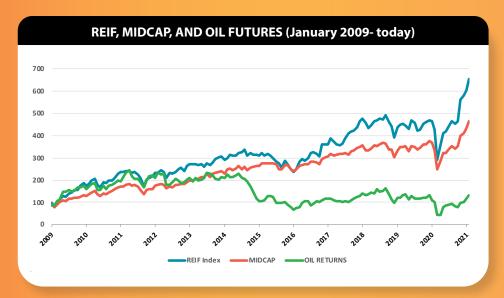


FIGURE 6. The REI has significantly outperformed relative to the S&P 400. Source: UWS REI Analysis using Yahoo Finance data

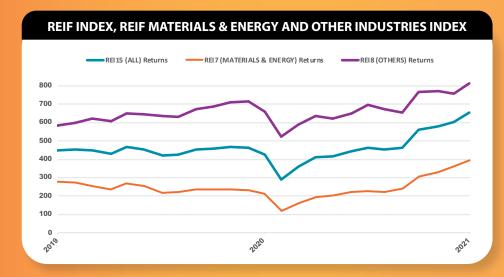


FIGURE 7. Industries in the communications, industrial, health care, and financial sectors fared better compared to materials and energy industries, for an overall K-shaped recovery. **Source:** UWS REI Analysis using Yahoo Finance data

THE COLLEGE OF ST. SCHOLASTICA

BUSINESS CONFIDENCE INDICATORS

Erica Henkel, CPA, MAcc, Assistant Professor of Finance and Economics Student Researchers: Isabel Becker and Nicholas Anderson

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 their sector, number of employees, recent and projected changes in business activity, and factors inhibiting growth. In addition, the survey asked targeted questions regarding support for entrepreneurship in our region.

In total, 107 businesses completed the survey. According to the results, the most common sectors were trade, transportation and utilities (n=31), leisure and hospitality (n=19), professional and business services (n=14), education and health services (n=11). Just over half of those surveyed had fewer than 20 employees, while 18% of respondents reported 100 or more employees.

Businesses were asked to evaluate their general business activity over the previous six months (**Figure 8**). In an upturn from last fall, 40% of businesses reported improved business activity (up from 30% in October 2020), and 40% reported decreased activity (down from 45%). About 30% also reported an improved business environment, up from 20% last fall.

After a year of COVID limiting business activity, businesses are highly optimistic about profits, employment, and activity for the next six months.

After evaluating the previous six months, businesses were then asked to forecast activity for the next six months based on the same criteria (**Figure 9**). Of the respondents, 68% reported confidence that business activity will improve in the next 6 months (up from 51% last spring), and only 5% expect decreases in activity (down from 25% last fall). Expectations of increasing profits are also up from last fall, with 49% predicting increasing profits and only 11% expecting decreases in profits. About half of businesses expect worker hours to stay the same in the next 6 months, and 40% expect increases in worker hours, which shows improvement in comparison to only 24% expecting increases last fall. COVID is still the single biggest factor limiting business activity, followed by shortage of qualified labor and cost of materials.

The final survey questions examined how well entrepreneurs are supported in the region (**Figure 10**). Surveyed businesses reported that the 15-county area is generally well supported in the areas of business financing availability, business incubation services and mentoring, continuing education and support for entrepreneurship. However respondents reported that the area's cultural infrastructure, including housing and arts, are generally not adequate. This was a striking difference from the other metrics. As this is considered a critical metric for attracting and supporting entrepreneurship, it is an area our regional leaders may want to take into consideration for future action.

What is your evaluation of the level of your business's activity over the last 6 months? Improved No change 26 Worsened

FIGURE 8. While 40 businesses reported improved conditions over the past six months, 39 said their business activity worsened. **Source:** CSS Business Confidence Survey



FIGURE 9. Businesses anticipate improvements in their business activity over the next six months. **Source:** CSS Business Confidence Survey

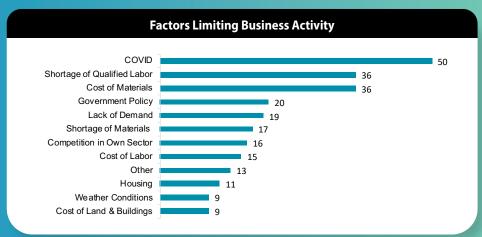


FIGURE 10. COVID is the single biggest factor limiting business growth, followed by a shortage of qualified labor and lack of demand.

Source: CSS Business Confidence Survey.



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