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October 28, 2014



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## OVERVIEW

National Bank of Commerce, in cooperation with the College of St. Scholastica, University of Minnesota-Duluth and University of Wisconsin-Superior, has initiated a long-term study of our area's economic indicators. The research will be ongoing and focusing on trends for a territory that covers 15 counties in Minnesota and Wisconsin. Participating sponsors of the study are NE MN Small Business Development Center (SBDC) and UW-Superior Small Business Development Center, the Development Association of Superior-Douglas County, APEX, BusinessNorth and the Development Association.

THE GOALS OF THIS PROJECT ARE 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 assess our progress in economic growth. Prepare baseline measures that will allow comparison with other regions and measure future progress of the region
- Track the region's participation in the "new economy" and development in the high tech arena
- 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


## EXECUTIVE SUMMARY

The REIF Region is a 15 -county area that covers Northeast Minnesota and Northwest Wisconsin. The 8 counties of Minnesota include the Arrowhead Region-Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis counties—along with Pine County. The 7 counties of Wisconsin include Ashland, Bayfield, Burnett, Douglas, Iron, Sawyer, and Washburn.

## ECONOMIC AND DEMOGRAPHIC TRENDS

Over the past six years, population in the REIF region has remained relatively constant. The Minnesota REIF region has increased slightly over this time period, while the Wisconsin REIF Region have declined. Although population in the region has remained constant, average personal and per-capita income has increased considerably in almost

every county in the REIF region. Employment in the region fell sharply accompanying the financial crisis of 2008. Since then, employment has risen steadily, but is still below the peak total of 2007.

Looking forward, the population of the REIF region is expected to peak at just over 500,000 around 2030, and then decline to levels similar to today's population. Nearly all of the projected increase in population over the next 20 years will be due to increases in the population over 65. These increases, accompanied by the decrease in persons aged 25-64 projects a large shift in the population distribution for our region. In some of the REIF counties, the proportion of persons aged 65 and over is expected to climb to $40 \%$ by 2040.

It is unclear in exactly which way these changes will affect the economic climate in the region. However, with these projected trends, it is likely that the REIF counties will see a decrease in their labor force over the coming years.

## CONSUMER CONFIDENCE INDICATORS

Consumer confidence indicators are useful tools in predicting future economic conditions. Starting from fall 2013 (a baseline period), a bi-annual consumer survey of 15 MN and WI counties has been used to estimate three regional indicators of consumers' confidence: Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Since the baseline was established, all three indices have exhibited a positive trend. This implies that consumers of the 15-county region have been generally feeling optimistic about the current and future state of the economy and expect a continued economic expansion in the short-run.
"The future belongs to those who prepare for it today." Malcolm X.

## EQUITY PERFORMANCE

This is the second report of an ongoing research project that tracks the equity performance of twelve companies located within the 15 counties surrounding the Twin Ports. An index of local stocks of interest was created, measures of future performance are examined, and comparisons to industry averages and market indices are analyzed.

The first report covers the performance of the index and individual stocks that make up the index over a five year period from January 2, 2009 through December 31, 2013. The second

report extends the study through September 30, 2014. The report also examines measures that provide forecasts of future performance.

Although the index showed a small positive return of $3.65 \%$ year-to-date, the overall performance of the index is above average when compared to the benchmark return of $2.95 \%$. Contributing to the lackluster performance of the index and the benchmark was the market correction during the last month of the study period. When comparing the growth of a $\$ 100$ investment in the REI index to the S\&P 400 over the holding period, the trend for the REI index mirrors the market and slightly outperforms the S\&P 400. The measures of future performance are consistent with market expectations. However, there does appear to be deterioration in some of the measures and investor confidence for the future is mixed.

## BUSINESS CONFIDENCE INDICATORS

The Northland business confidence survey was distributed to local businesses in September and early October of 2014. There were a total of 126 responses, $52 \%$ of which came from small businesses with 1-19 employees.

The region registered strong business confidence with an index reading of 110. (Any reading above 100 indicates optimism.) This was very similar to last year's reading of 111 . Overall business activity for the previous six months was positive, and businesses forecasted a moderate increase over the next six months.

Businesses reported increases in the number of employees and average hours worked, with the latter increasing more substantially. Selling prices also saw large increases, indicating no danger of deflationary pressures.

While businesses are optimistic about the direction of business activity in the region, they reported the following factors as most limiting their ability to generate growth: competition within their own sector, demand, government policy, shortage of skilled labor, and cost of labor.

Businesses with 50-249 employees exhibited the most confidence out of the size categories with the vast majority reporting a moderate to significant increase in business activity. The leisure and hospitality industry was the strongest of those analyzed, reporting significant growth and a strong indication to continue.

When prompted to identify the anticipated impact of the region's aging population on their demand for skilled labor, level of productivity, and level of businesses activity, the majority of businesses responded "no change." Those who anticipated being impacted often selected an increase for each factor.


## 15-COUNTY MAP

The REIF Region is a 15-county area that covers Northeast Minnesota and Northwest Wisconsin. The 8 counties of Minnesota include the Arrowhead Region - Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis counties - along with Pine County. The Wisconsin counties are Ashland, Bayfield, Burnett, Douglas, Iron, Sawyer, and Washburn. This large, combined, two-state region has many common industries.

Figure 1 - REIF 15-County Region


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## ECONOMIC AND DEMOGRAPHIC TRENDS

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This chapter highlights economic and demographic trends for the 15-county REIF region. Included are income, employment, and industry trends, as well as population trends and projections with a special focus on the aging population in Northeastern Minnesota and Northwestern Wisconsin.

## SPECIAL SECTION: THE AGING WORKFORCE

## POPULATION TRENDS AND PROJECTIONS

The following section contains population trends and projections for each of the 15 counties in the REIF region as well as combined totals for both states. Tables $1-3$ show the changes in population from 2008-2013. Overall, the regional population has been flat during this time period. While the population in the eight Minnesota counties increased slightly from 355,178 to 355,693 (a percent change of only $0.1 \%$ ), the Wisconsin population declined from 129,585 to 128,477 during that time period (a decline of $0.8 \%$ ). As a result, the population for the combined 15 -county area changed very little over the six-year period, decreasing slightly from 484,763 to 484,170 . Comparatively, the state populations of Minnesota and Wisconsin increased by $3.3 \%$ and $1.8 \%$, respectively. This indicates that the REIF region has not kept up with population growth statewide.

Table 1 - Minnesota Population (persons) by County (2008-2013)

| County | 2008 | 2009 | 2010 | 2011 | 2012 | 2013* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin | 16,422 | 16,168 | 16,211 | 16,102 | 15,927 | 15,742 |
| Carlton | 34,986 | 35,269 | 35,409 | 35,507 | 35,348 | 35,460 |
| Cook | 5,255 | 5,203 | 5,167 | 5,216 | 5,185 | 5,200 |
| Itasca | 44,852 | 45,066 | 45,010 | 45,112 | 45,221 | 45,564 |
| Koochiching | 13,432 | 13,276 | 13,307 | 13,244 | 13,208 | 13,206 |
| Lake | 10,872 | 10,872 | 10,869 | 10,813 | 10,818 | 10,877 |
| Pine | 29,614 | 29,655 | 29,727 | 29,607 | 29,218 | 29,104 |
| St. Louis | 199,745 | 200,198 | 200,169 | 200,318 | 200,319 | 200,540 |
| Total of Counties | 355,178 | 355,707 | 355,869 | 355,919 | 355,244 | 355,693 |
| Minnesota state total | 5,247,018 | 5,281,203 | 5,310,737 | 5,347,299 | 5,379,139 | 5,420,380 |
| Source: US Department of Commerce, Bureau of Economic Analysis, *US Census Bureau, 2013 Estimate (as of July ${ }^{\text {st }}$, 2013) |  |  |  |  |  |  |

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Table 2 - Wisconsin Population (persons) by County (2008-2013)

| County | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | 2013* |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Ashland | 16,145 | 16,128 | 16,172 | 16,126 | 15,992 | 16,016 |
| Bayfield | 15,160 | 14,981 | 15,015 | 15,136 | 15,099 | 15,156 |
| Burnett | 15,696 | 15,609 | 15,434 | 15,520 | 15,382 | 15,333 |
| Douglas | 43,830 | 43,998 | 44,188 | 44,013 | 43,785 | 43,887 |
| Iron | 6,101 | 5,966 | 5,889 | 5,998 | 5,934 | 5,886 |
| Sawyer | 16,650 | 16,559 | 16,569 | 16,539 | 16,581 | 16,513 |
| Washburn | 16,003 | 15,947 | 15,922 | 15,768 | 15,826 | 15,686 |
| Total of Counties | 129,585 | 129,188 | 129,189 | 129,100 | 128,599 | 128,477 |
| Wisconsin state total | $5,640,996$ | $5,669,264$ | $5,689,591$ | $5,709,843$ | $5,726,398$ | $5,742,713$ |

Source: US Department of Commerce, Bureau of Economic Analysis
Table 3 - Combined Population (persons) for 15-county Region (2008-2013)

|  | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}^{\boldsymbol{*}}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| REIF Population MN | 355,178 | 355,707 | 355,869 | 355,919 | 355,244 | 355,693 |
| REIF Population WI | 129,585 | 129,188 | 129,189 | 129,100 | 128,599 | 128,477 |
| Total | 484,763 | 484,895 | 485,058 | 485,019 | 483,843 | 484,170 |
| Source: US Department of Commerce, Bureau of Economic Analysis |  |  |  |  |  |  |

Tables 4-6 include population projections for the REIF region, collected from the Minnesota State Demographic Center and the Wisconsin Demographic Services Center. These projections are calculated using a combination of life expectancy statistics, fertility rates, and net-migration patterns (Egan-Robertson, 2014) (Robertson, 2013).

There are a few notable points to mention when looking at the projections for the REIF region. First, the total population in Minnesota's REIF counties is expected to peak in 2025 with a population of 369,817 . Afterward, the region's population is expected to decrease to 358,886 by 2040. Similarly, the population in Wisconsin's REIF counties is expected to peak in 2030 with a population of 138,425 . By 2040, the population is expected to decrease to 134,430 .

Both states follow a similar trend over the 25 year period (gradual growth then decline), However, Wisconsin is actually predicted to experience a net increase in population growth (3.5\%), whereas Minnesota is predicted to experience a net decline ( $-1.4 \%$ ). The projected bright spots in the region include Carlton County in Minnesota (8\% projected increase in population) and Douglas and Washburn Counties in Wisconsin (12\% projected increase in both counties). The counties that are predicted to lose the largest share of their population include


Aitkin (12\% loss) and Cook (11\% loss) counties in Minnesota and Bayfield county in Wisconsin (11\% loss).

While the total combined population for the REIF region is predicted to decrease slightly over the next 25 years, Minnesota and Wisconsin are expected to grow by more than $12 \%$ over the same time period. This may very well put the region at a competitive disadvantage, and warrants careful attention.

Table 4 - Minnesota Projected Population (persons) by County 2015-2040

| County | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin | 17,460 | 17,488 | 17,086 | 16,477 | 15,809 | 15,327 |
| Carlton | 37,494 | 38,596 | 39,399 | 40,084 | 40,500 | 40,630 |
| Cook | 5,376 | 5,417 | 5,368 | 5,264 | 5,016 | 4,811 |
| Itasca | 47,344 | 48,339 | 48,834 | 48,865 | 48,543 | 48,056 |
| Koochiching | 13,589 | 13,738 | 13,783 | 13,758 | 13,651 | 13,435 |
| Lake | 11,217 | 11,322 | 11,335 | 11,184 | 11,013 | 10,751 |
| Pine | 31,532 | 32,257 | 32,540 | 32,563 | 32,328 | 31,963 |
| St. Louis | 200,077 | 200,794 | 201,472 | 200,299 | 198,058 | 193,913 |
| MN REIF Counties | 364,089 | 367,951 | 369,817 | 368,494 | 364,918 | 358,886 |
| Minnesota State Total | 5,497,933 | 5.677,582 | 5,841,619 | 5,982,601 | 6,093,729 | 6,175,801 |

Table 5 - Wisconsin Projected Population (persons) by County 2015-2040

| County | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 3 0}$ | $\mathbf{2 0 3 5}$ | $\mathbf{2 0 4 0}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Ashland | 16,100 | 16,040 | 16,200 | 16,140 | 15,965 | 15,315 |
| Bayfield | 15,360 | 15,105 | 15,100 | 14,860 | 14,330 | 13,725 |
| Burnett | 15,425 | 16,155 | 17,125 | 17,800 | 17,915 | 17,425 |
| Douglas | 44,665 | 45,660 | 46,555 | 47,185 | 47,305 | 47,105 |
| Iron | 5,620 | 5,680 | 5,850 | 5,970 | 5,825 | 5,420 |
| Sawyer | 16,690 | 17,070 | 17,645 | 18,010 | 17,895 | 17,430 |
| Washburn | 16,010 | 16,795 | 17,775 | 18,460 | 18,500 | 18,010 |
| WI REIF Counties | 129,870 | 132,505 | 136,250 | 138,425 | 137,735 | 134,430 |
| Wisconsin State Total | $5,783,015$ | $6,005,080$ | $6,203,850$ | $6,375,910$ | $6,476,270$ | $6,491,635$ |
| Source: Us Department of Commerce, Bureau of Economic Analysis, Wisconsin Demographic Services Center |  |  |  |  |  |  |

Table 6 - Combined Projected Population for 15-County Region (2015-2040)

|  | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 3 0}$ | $\mathbf{2 0 3 5}$ | $\mathbf{2 0 4 0}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| REIF Population MN | 364,089 | 367,951 | 369,817 | 368,494 | 364,918 | 358,886 |
| REIF Population WI | 129,870 | 132,505 | 136,250 | 138,425 | 137,735 | 134,430 |
| REIF Total | 493,959 | 500,456 | 506,067 | 506,919 | 502,653 | 493,316 |

Source: US Dept. of Commerce, Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Ctr.
Figure 2- Population Persons REIF Area (2007-2040)


Source: US Department of Commerce, Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

## AGE DISTRIBUTION: PATTERNS AND PROJECTIONS

The following section presents information about age distribution for each of the 15 counties in the REIF regions. Tables 7 and 8 show changes in the age distribution (25-64 and Over 65) for each county from 2009 to 2013 . For most of the region, during this time period, the over- 65 population has grown as a percentage of the total population, while the percent of 25-64 year olds has declined. This is especially true in Cook and Aitkin counties, which we will discuss later in this chapter.


Table 7 - Share of Population by Age Group, Minnesota Counties (2009-2013)

| MN Counties | Population $\%$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Aitkin | 25-64 | $\mathbf{4 9 . 9 2 \%}$ | $\mathbf{4 9 . 6 1 \%}$ | $49.76 \%$ | $48.91 \%$ | $47.91 \%$ |
|  | Over 65 | $27.29 \%$ | $27.32 \%$ | $27.42 \%$ | $28.53 \%$ | $29.51 \%$ |
| Carlton | $25-64$ | $53.21 \%$ | $53.96 \%$ | $54.17 \%$ | $53.65 \%$ | $53.40 \%$ |
|  | Over 65 | $15.08 \%$ | $15.01 \%$ | $15.02 \%$ | $15.54 \%$ | $15.96 \%$ |
| Cook | $25-64$ | $61.21 \%$ | $57.28 \%$ | $56.46 \%$ | $54.87 \%$ | $53.85 \%$ |
|  | Over 65 | $20.20 \%$ | $20.53 \%$ | $21.22 \%$ | $22.72 \%$ | $23.69 \%$ |
| Itasca | $25-64$ | $52.74 \%$ | $52.34 \%$ | $52.23 \%$ | $51.60 \%$ | $51.10 \%$ |
|  | Over 65 | $19.03 \%$ | $19.04 \%$ | $19.26 \%$ | $20.01 \%$ | $20.41 \%$ |
| Koochiching | $25-64$ | $51.61 \%$ | $52.86 \%$ | $52.71 \%$ | $52.22 \%$ | $51.86 \%$ |
|  | Over 65 | $19.61 \%$ | $19.44 \%$ | $19.70 \%$ | $20.38 \%$ | $20.87 \%$ |
| Lake | $25-64$ | $53.61 \%$ | $52.15 \%$ | $51.97 \%$ | $51.40 \%$ | $51.18 \%$ |
|  | Over 65 | $22.33 \%$ | $22.38 \%$ | $22.84 \%$ | $23.50 \%$ | $23.73 \%$ |
| Pine | $25-64$ | $53.54 \%$ | $54.45 \%$ | $54.60 \%$ | $54.28 \%$ | $54.23 \%$ |
|  | Over 65 | $16.37 \%$ | $16.35 \%$ | $16.65 \%$ | $17.53 \%$ | $18.03 \%$ |
| St. Louis | $25-64$ | $48.82 \%$ | $51.81 \%$ | $51.78 \%$ | $51.35 \%$ | $51.14 \%$ |
|  | Over 65 | $15.89 \%$ | $15.92 \%$ | $15.93 \%$ | $16.43 \%$ | $16.87 \%$ |

Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center
Table 8 - Share of Population by Age Group, Wisconsin Counties (2009-2013)

| WI Counties | Population \% | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Ashland | 25-64 | $50.69 \%$ | $50.97 \%$ | $51.19 \%$ | $51.00 \%$ | $50.77 \%$ |
|  | Over 65 | $15.92 \%$ | $15.89 \%$ | $16.12 \%$ | $16.85 \%$ | $17.21 \%$ |
| Bayfield | $25-64$ | $54.51 \%$ | $55.16 \%$ | $54.46 \%$ | $53.54 \%$ | $52.64 \%$ |
|  | Over 65 | $20.77 \%$ | $20.79 \%$ | $21.43 \%$ | $22.28 \%$ | $23.08 \%$ |
| Burnett | $25-64$ | $52.22 \%$ | $51.59 \%$ | $51.24 \%$ | $50.62 \%$ | $49.90 \%$ |
|  | Over 65 | $22.87 \%$ | $23.23 \%$ | $23.73 \%$ | $24.68 \%$ | $25.57 \%$ |
| Douglas | $25-64$ | $54.92 \%$ | $53.88 \%$ | $54.07 \%$ | $53.67 \%$ | $53.77 \%$ |
|  | Over 65 | $14.46 \%$ | $14.43 \%$ | $14.46 \%$ | $15.14 \%$ | $15.57 \%$ |
| Iron | $25-64$ | $53.50 \%$ | $53.18 \%$ | $51.80 \%$ | $51.06 \%$ | $50.68 \%$ |
|  | Over 65 | $25.18 \%$ | $25.27 \%$ | $26.64 \%$ | $27.57 \%$ | $28.03 \%$ |
| Sawyer | $25-64$ | $52.74 \%$ | $51.99 \%$ | $51.86 \%$ | $51.18 \%$ | $50.50 \%$ |
|  | Over 65 | $20.71 \%$ | $20.82 \%$ | $21.19 \%$ | $22.00 \%$ | $22.69 \%$ |
| Washburn | $25-64$ | $51.56 \%$ | $52.83 \%$ | $52.50 \%$ | $51.61 \%$ | $51.07 \%$ |
|  | Over 65 | $21.20 \%$ | $21.42 \%$ | $21.52 \%$ | $22.48 \%$ | $23.21 \%$ |

Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

[^1]

Tables 9 and 10 include population projections for the REIF region, for the 25-64 and Over 65 age groups. Here we see that the percent of the population over 65 is expected to continue to increase, and in some cases will be significant. For example, in Carlton County the over-65 population is expected to increase from just over $20 \%$ to nearly $30 \%$ between 2020 and 2040. Bayfield County, WI is expected to see their 25-64 year-old population drop from nearly $50 \%$ to less than 40\% during that same time period.

These numbers are startling and suggest that, over the next few decades, this region be challenged with a rapidly-aging population. This situation is not unique to Northeastern Minnesota and Northwestern Wisconsin, but we will likely experience it more acutely than other parts of the United States.

Table 9 - Projected Share of Population by Age Group, Minnesota Counties (2015-2040)

| MN Counties | Population \% | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin | 25-64 | 44.38\% | 40.38\% | 37.83\% | 35.81\% | 36.21\% | 38.51\% |
|  | Over 65 | 32.46\% | 35.96\% | 38.36\% | 39.08\% | 37.45\% | 33.65\% |
| Carlton | 25-64 | 51.75\% | 49.54\% | 47.03\% | 45.47\% | 44.70\% | 44.30\% |
|  | Over 65 | 17.89\% | 20.96\% | 24.62\% | 27.36\% | 28.46\% | 28.41\% |
| Cook | 25-64 | 52.06\% | 46.69\% | 43.27\% | 38.30\% | 36.34\% | 37.98\% |
|  | Over 65 | 26.47\% | 32.01\% | 37.07\% | 40.06\% | 40.57\% | 38.50\% |
| Itasca | 25-64 | 48.59\% | 44.64\% | 41.94\% | 40.19\% | 39.83\% | 40.65\% |
|  | Over 65 | 23.10\% | 27.05\% | 30.41\% | 32.18\% | 31.98\% | 30.46\% |
| Koochiching | 25-64 | 49.58\% | 45.11\% | 42.67\% | 40.26\% | 41.71\% | 40.04\% |
|  | Over 65 | 23.00\% | 27.59\% | 31.17\% | 33.34\% | 31.58\% | 32.60\% |
| Lake | 25-64 | 50.74\% | 45.66\% | 42.53\% | 39.20\% | 39.34\% | 40.53\% |
|  | Over 65 | 24.61\% | 29.46\% | 33.51\% | 35.79\% | 35.49\% | 33.79\% |
| Pine | 25-64 | 52.60\% | 50.22\% | 47.89\% | 45.94\% | 45.36\% | 45.61\% |
|  | Over 65 | 19.29\% | 22.71\% | 26.40\% | 29.12\% | 30.36\% | 29.67\% |
| St. Louis | 25-64 | 49.86\% | 46.16\% | 43.35\% | 41.38\% | 41.47\% | 41.63\% |
|  | Over 65 | 18.94\% | 23.23\% | 27.50\% | 30.43\% | 31.20\% | 30.66\% |

Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

Table 10 - Projected Share of Population by Age Group, Wisconsin Counties (2015-2040)

| WI Counties | Population \% | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ashland | 25-64 | 51.58\% | 49.10\% | 45.93\% | 43.37\% | 42.78\% | 43.03\% |
|  | Over 65 | 18.26\% | 21.63\% | 25.49\% | 28.69\% | 30.13\% | 30.62\% |
| Bayfield | 25-64 | 52.73\% | 48.03\% | 42.85\% | 39.70\% | 38.28\% | 38.80\% |
|  | Over 65 | 25.10\% | 31.25\% | 37.38\% | 41.08\% | 43.13\% | 43.42\% |
| Burnett | 25-64 | 50.63\% | 47.26\% | 44.06\% | 42.53\% | 42.98\% | 43.56\% |
|  | Over 65 | 25.12\% | 28.54\% | 31.62\% | 32.87\% | 32.88\% | 33.00\% |
| Douglas | 25-64 | 54.05\% | 51.75\% | 48.82\% | 46.43\% | 46.11\% | 46.26\% |
|  | Over 65 | 16.40\% | 19.25\% | 21.92\% | 23.98\% | 24.49\% | 24.55\% |
| Iron | 25-64 | 51.87\% | 48.77\% | 44.36\% | 41.04\% | 40.09\% | 40.31\% |
|  | Over 65 | 27.67\% | 31.07\% | 35.47\% | 38.27\% | 38.97\% | 38.56\% |
| Sawyer | 25-64 | 51.35\% | 48.56\% | 45.23\% | 43.34\% | 43.64\% | 43.98\% |
|  | Over 65 | 23.37\% | 27.01\% | 30.63\% | 32.93\% | 33.28\% | 33.65\% |
| Washburn | 25-64 | 51.62\% | 48.02\% | 44.75\% | 42.82\% | 43.32\% | 43.56\% |
|  | Over 65 | 23.86\% | 27.66\% | 30.97\% | 33.10\% | 33.19\% | 33.65\% |

Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

Table 11 - Combined Projected Share of Population by Age Group (2015-2040)

|  | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 3 0}$ | $\mathbf{2 0 3 5}$ | $\mathbf{2 0 4 0}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| REIF MN 25-64 | $49.95 \%$ | $46.05 \%$ | $43.31 \%$ | $40.82 \%$ | $40.62 \%$ | $41.16 \%$ |
| REIF MN 65+ | $23.22 \%$ | $27.37 \%$ | $31.13 \%$ | $33.42 \%$ | $33.39 \%$ | $32.22 \%$ |
| REIF WI 25-64 | $51.98 \%$ | $48.78 \%$ | $45.14 \%$ | $42.75 \%$ | $42.46 \%$ | $42.79 \%$ |
| REIF WI 65+ | $22.83 \%$ | $26.63 \%$ | $30.50 \%$ | $32.99 \%$ | $33.72 \%$ | $33.92 \%$ |
| TOTAL 25-64 | $50.96 \%$ | $47.42 \%$ | $44.23 \%$ | $41.78 \%$ | $41.54 \%$ | $41.97 \%$ |
| TOTAL 65+ | $23.02 \%$ | $27.00 \%$ | $30.81 \%$ | $33.20 \%$ | $33.56 \%$ | $33.07 \%$ |

Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

Figures 3-6 visually show the percent of the population over 65. Lighter colors represent smaller percentages, and darker colors represent larger percentages. Between 2010 and 2020, you will notice a drastic increase in the percent of the population over the age of 65 in the region. In 2010, seven of the fifteen counties had over-65 populations of less than $20 \%$, whereas by 2020,

only one of the fifteen counties is projected to see less than $20 \%$ of their population over 65 . In fact, four of the fifteen counties are expected to have at least $30 \%$ of their populations be 65 and over. From the year 2020 to 2030, we see a significant jump in darker colors (over 35\%), going from one county up to five. By the year 2040, the trend is expected to begin to reverse. By this time, it is expected that the large share of the over-65 population will decline slightly, due to mortality rates among the baby-boomer generation.

Figure 3 - Percentage of Population Age 65 and Older, 2010



Figure 4 - Percentage of Population Age 65 and Older, 2020


Figure 5 - Percentage of Population Age 65 and Older, 2030


Figure 6 - Percentage of Populations Ages 65 and Older, 2040


## NOTABLE PROJECTIONS

This section highlights some counties in the REIF region that are projected to experience notable changes in their over-65 populations.

## Cook County, MN

Cook County is expected to see a significant increase in the percent of its population over 65. As of 2013, Cook County had 1,232 individuals of the age 65 or higher. This proportion is expected to increase to $41 \%$ by the year 2035, which is among the highest in the region.


Figure 7 - Projected Population, Cook County, (2015-2040)


Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center
After peaking in 2035, the percent population over 65 in Cook County is expected to decline gradually, mirrored by an increase in the $25-64$ population. By 2040, the percent population will reside at $38.05 \%$.

## Aitkin County, MN

The case of Aitkin County, MN is exceptional because the county already has a relatively high proportion of the population over 65. Over the next 25 years, the percent population over 65 in Aitkin is only expected to increase by a net of $4 \%$.


Figure 8 - Projected Population, Aitkin County (2015-2040)


Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center
It is interesting to note that the population over 65 in Aitkin declines more rapidly after 2035 in Aitkin than in the other REIF counties. This trend is not reflected as drastically in the others. Currently, the percent population of Aitkin County is $29.51 \%$. It will peak at $39.08 \%$ by 2030, and then decline to $33.65 \%$ by 2040 , which is a $5.43 \%$ decline in a five-year span.

## Douglas County, WI

In contrast to the case of Cook County, MN, Douglas, WI is expected to see only a small increase in the proportion of the population over 65. In addition to its small growth rate, the percent population over 65 in Douglas County is consistently smaller across the projection period than the other counties. Currently, the percent population over 65 in Douglas is $16 \%$. Over the next 25 years, this is only expected to increase to $25 \%$, which is the smallest percentage in the region by over $3 \%$.


Figure 9 - Projected Population, Douglas County (2015-2040)


Sources: Bureau of Economic Analysis, Minnesota State Demographic Center, Wisconsin Demographic Services Center

## SUMMARY

In most cases, the overall population of the REIF Region is rising slightly, peaking around 2025/2030, and then falling. Most of the increase in population during that time period is due to the increase in the over 65 population. The younger population (25-64) is projected to decline during this time period.

## INCOME

Personal and per-capita income are both critical measures in determining the economic wellbeing of a region. This section includes trends for each of the counties in the REIF region, as well as the state and combined totals for the years 2007-2012. Personal income in the region increased by $16.5 \%$, from $\$ 15.5$ billion in 2007 to $\$ 18$ billion in 2012. The resulting per capita income also increased by $16.4 \%$ from $\$ 32,037$ to $\$ 37,302$. Of the counties in the REIF region, Iron and Washburn counties experienced the highest growth in personal income (34\% and 27\%,

respectively), while Koochiching county experienced the slowest rate of growth (10\%) during the six-year period.

Table 12 - Minnesota Personal Income (thousands)

| County | 2007 | 2008 | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Aitkin | $\$ 455,087$ | $\$ 477,416$ | $\$ 479,885$ | $\$ 498,064$ | $\$ 523,471$ | $\$ 542,848$ |
| Carlton | $\$ 997,963$ | $\$ 1,051,112$ | $\$ 1,069,823$ | $\$ 1,103,040$ | $\$ 1,154,693$ | $\$ 1,178,121$ |
| Cook | $\$ 188,739$ | $\$ 197,725$ | $\$ 200,820$ | $\$ 205,454$ | $\$ 226,179$ | $\$ 233,329$ |
| Itasca | $\$ 1,319,408$ | $\$ 1,393,469$ | $\$ 1,411,793$ | $\$ 1,452,432$ | $\$ 1,546,399$ | $\$ 1,590,761$ |
| Koochiching | $\$ 432,986$ | $\$ 439,385$ | $\$ 444,701$ | $\$ 469,580$ | $\$ 481,029$ | $\$ 477,889$ |
| Lake | $\$ 396,419$ | $\$ 413,217$ | $\$ 406,680$ | $\$ 430,290$ | $\$ 460,217$ | $\$ 478,053$ |
| Pine | $\$ 758,528$ | $\$ 797,776$ | $\$ 810,250$ | $\$ 838,686$ | $\$ 870,523$ | $\$ 893,129$ |
| St. Louis | $\$ 6,979,520$ | $\$ 7,242,531$ | $\$ 7,072,491$ | $\$ 7,290,798$ | $\$ 7,796,421$ | $\$ 8,007,980$ |
| REIF Total | $\$ 11,528,650$ | $\$ 12,012,631$ | $\$ 11,896,443$ | $\$ 12,288,344$ | $\$ 13,058,932$ | $\$ 13,402,110$ |
| Minnesota | $\$ 216,557,329$ | $\$ 225,978,400$ | $\$ 217,595,216$ | $\$ 226,319,865$ | $\$ 241,351,998$ | $\$ 252,413,486$ |

Source: US Department of Commerce, Bureau of Economic Analysis

Table 13 - Wisconsin Personal Income (thousands)

| County | 2007 | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Ashland | $\$ 497,165$ | $\$ 508,627$ | $\$ 538,059$ | $\$ 523,770$ | $\$ 541,129$ | $\$ 566,696$ |
| Bayfield | $\$ 466,622$ | $\$ 486,172$ | $\$ 500,363$ | $\$ 503,088$ | $\$ 521,360$ | $\$ 547,209$ |
| Burnett | $\$ 494,601$ | $\$ 512,199$ | $\$ 517,969$ | $\$ 535,764$ | $\$ 563,171$ | $\$ 587,342$ |
| Douglas | $\$ 1,304,041$ | $\$ 1,346,343$ | $\$ 1,358,270$ | $\$ 1,397,183$ | $\$ 1,446,444$ | $\$ 1,480,785$ |
| Iron | $\$ 180,772$ | $\$ 197,763$ | $\$ 213,573$ | $\$ 219,324$ | $\$ 228,857$ | $\$ 241,514$ |
| Sawyer | $\$ 559,233$ | $\$ 547,664$ | $\$ 571,389$ | $\$ 582,043$ | $\$ 599,142$ | $\$ 631,191$ |
| Washburn | $\$ 466,603$ | $\$ 511,660$ | $\$ 510,319$ | $\$ 532,788$ | $\$ 565,798$ | $\$ 591,525$ |
| REIF Total | $\$ 3,969,037$ | $\$ 4,110,428$ | $\$ 4,209,942$ | $\$ 4,293,960$ | $\$ 4,465,901$ | $\$ 4,646,262$ |
| Wisconsin Total | $\$ 211,397,911$ | $\$ 218,505,672$ | $\$ 217,495,212$ | $\$ 220,502,277$ | $\$ 232,094,278$ | $\$ 241,200,961$ |

Source: US Department of Commerce, Bureau of Economic Analysis

Table 14 - Combined Personal Income (thousands)

|  | 2007 | 2008 | 2009 | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Total Income MN | $\$ 11,528,650$ | $\$ 12,012,631$ | $\$ 11,896,443$ | $\$ 12,288,344$ | $\$ 13,058,932$ | $\$ 13,402,110$ |
| Total Income WI | $\$ 3,969,037$ | $\$ 4,110,428$ | $\$ 4,209,942$ | $\$ 4,293,960$ | $\$ 4,465,901$ | $\$ 4,646,262$ |
| Total | $\$ 15,497,687$ | $\$ 16,123,059$ | $\$ 16,106,385$ | $\$ 16,582,304$ | $\$ 17,524,833$ | $\$ 18,048,372$ |

Source: US Department of Commerce, Bureau of Economic Analysis

Figure 10 - Total Income by State and Combined (2007-2012)


Source: US Department of Commerce, Bureau of Economic Analysis
The per capita income for the REIF region is below the statewide average for both Minnesota and Wisconsin, as shown below in the following tables and graph. In 2012, the Wisconsin per capita income was $\$ 42,121$ and the Minnesota per capita income was $\$ 46,925$. This is approximately a $\$ 10,000$ difference in per capita income between the state and the REIF region. Again, Iron and Washburn counties experienced the highest growth in per-capita income (39\% and $28 \%$, respectively) during the 2007-2012 time period. Alternatively, Douglas County

experienced the slowest growth in per-capita income. The growth in this county was completely flat, at 0\% during the six-year period. It is interesting to note that Douglas County also has the lowest percent of residents over 65 of any in the region. It is possible that the two measures are related.

Table 15 - Minnesota Per Capita Personal Income (\$)

| County | 2007 | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin | $\$ 27,613$ | $\$ 29,072$ | $\$ 29,681$ | $\$ 30,724$ | $\$ 32,510$ | $\$ 34,084$ |
| Carlton | $\$ 28,846$ | $\$ 30,044$ | $\$ 30,333$ | $\$ 31,151$ | $\$ 32,520$ | $\$ 33,329$ |
| Cook | $\$ 36,178$ | $\$ 37,626$ | $\$ 38,597$ | $\$ 39,763$ | $\$ 43,363$ | $\$ 45,001$ |
| Itasca | $\$ 29,445$ | $\$ 31,068$ | $\$ 31,327$ | $\$ 32,269$ | $\$ 34,279$ | $\$ 35,177$ |
| Koochiching | $\$ 31,891$ | $\$ 32,712$ | $\$ 33,497$ | $\$ 35,288$ | $\$ 36,321$ | $\$ 36,182$ |
| Lake | $\$ 36,242$ | $\$ 38,007$ | $\$ 37,406$ | $\$ 39,589$ | $\$ 42,561$ | $\$ 44,191$ |
| Pine | $\$ 25,968$ | $\$ 26,939$ | $\$ 27,323$ | $\$ 28,213$ | $\$ 29,403$ | $\$ 30,568$ |
| St. Louis | $\$ 35,090$ | $\$ 36,259$ | $\$ 35,327$ | $\$ 36,423$ | $\$ 38,920$ | $\$ 39,976$ |
| Total of Counties | $\$ 251,273$ | $\$ 261,727$ | $\$ 263,491$ | $\$ 273,420$ | $\$ 289,877$ | $\$ 298,508$ |
| Minnesota State Total | $\$ 41,588$ | $\$ 43,068$ | $\$ 41,202$ | $\$ 42,616$ | $\$ 45,135$ | $\$ 46,925$ |

Source: US Department of Commerce, Bureau of Economic Analysis

Table 16 - Wisconsin Per Capita Personal Income (\$)

| County | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Ashland | $\$ 30,691$ | $\$ 31,504$ | $\$ 33,362$ | $\$ 32,387$ | $\$ 33,556$ | $\$ 35,436$ |
| Bayfield | $\$ 30,588$ | $\$ 32,069$ | $\$ 33,400$ | $\$ 33,506$ | $\$ 34,445$ | $\$ 36,241$ |
| Burnett | $\$ 30,980$ | $\$ 32,632$ | $\$ 33,184$ | $\$ 34,713$ | $\$ 36,287$ | $\$ 38,184$ |
| Douglas | $\$ 43,710$ | $\$ 43,830$ | $\$ 43,998$ | $\$ 44,188$ | $\$ 44,013$ | $\$ 43,785$ |
| Iron | $\$ 29,299$ | $\$ 32,415$ | $\$ 35,798$ | $\$ 37,243$ | $\$ 38,156$ | $\$ 40,700$ |
| Sawyer | $\$ 33,539$ | $\$ 32,893$ | $\$ 34,506$ | $\$ 35,128$ | $\$ 36,226$ | $\$ 38,067$ |
| Washburn | $\$ 29,094$ | $\$ 31,973$ | $\$ 32,001$ | $\$ 33,462$ | $\$ 35,883$ | $\$ 37,377$ |
| Total of Counties | $\$ 227,901$ | $\$ 237,316$ | $\$ 246,249$ | $\$ 250,627$ | $\$ 258,566$ | $\$ 269,790$ |
| Wisconsin State |  |  |  |  |  |  |
| Total | $\$ 37,677$ | $\$ 38,735$ | $\$ 38,364$ | $\$ 38,755$ | $\$ 40,648$ | $\$ 42,121$ |
| Source: us Department of Commerce, Bureau of Economic Analysis |  |  |  |  |  |  |

Table 17 - Combined Per Capita Income (\$)

|  | 2007 | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Per Capita MN | $\$ 32,592$ | $\$ 33,821$ | $\$ 33,445$ | $\$ 34,531$ | $\$ 36,691$ | $\$ 37,726$ |
| Total Per Capita WI | $\$ 30,528$ | $\$ 31,720$ | $\$ 32,588$ | $\$ 33,238$ | $\$ 34,593$ | $\$ 34,593$ |
| REIF Area Per <br> Capita | $\$ 32,037$ | $\$ 33,260$ | $\$ 33,216$ | $\$ 34,186$ | $\$ 36,132$ | $\$ 37,302$ |

Source: US Department of Commerce, Bureau of Economic Analysis

Figure 11 - Per Capita Income by State and Combined (2007-2012)


## EMPLOYMENT AND INDUSTRY TRENDS

This section includes trends on employment and industry statistics for the 15-county REIF region. Employment measures include total employment and unemployment, the unemployment rate, and labor force participation. Industry trends show the current industry mix

for the region, employment growth by industry for the time period pre- and post-recession, and job projections by industry through 2020.

## EMPLOYMENT

The graph below shows total REIF employment from 2000 to 2013. This shows that the region is recovering from the Great Recession where total employment had dropped to 190,416 in 2009. However, the 2013 total employment of 194,720 is still below the peak total employment of 198,623 in 2007.

Figure 12 - Total Employment, 2000-2013


| 2000 | 2002 | 2004 | 2006 | 2008 | 2010 | 2012 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Source: Quarterly Census of Employment and Wages: MN DEED \& WI Department of Workforce Development

## UNEMPLOYMENT RATE: 1990-2013

The figure below showing the unemployment rate from 1990 to 2013 indicates a positive sign for the area. One possible explanation for the decline in the unemployment rate could be attributed to the fact that workers over the age of 65 are retiring, and therefore no longer part of the labor force. An increase in the amount of citizens finding employment is not the sole reason for a declining unemployment rate.

Figure 13 - Unemployment Rate (1990-2013)


Source: LAUS: MN DEED \& WI Dept. of Employment


## TOTAL UNEMPLOYMENT: 1990-2013

Figure 14 shows the total unemployment of the region from 1990 to 2013. As expected, the total unemployment has dropped as indicated by the unemployment rate. The graph below separates the trend by Minnesota and Wisconsin counties and the total REIF region. By 2013, the number of unemployed people in the Wisconsin region was 5,487 , while the Minnesota region had 12,269 unemployed people. The REIF region total was 17,756. These numbers are NOT seasonally adjusted.

Figure 14 - Total Unemployment (1990-2013)


Source: LAUS: MN DEED \& WI Dept. of Employment

Based upon the decrease in the number of unemployed people and the decrease in the unemployment rate, there would be an expected increase in the number of employed people. However, as shown in the graph below, the total employment did not rise in 2013. It was flat or declined slightly. We attribute this to the aging demographics of the region and to individuals leaving the labor force.

Figure 15 - Total Employment (1990-2013)

19901995 2000 2010

Source: LAUS: MN DEED \& WI Dept. of Employment


## LABOR FORCE PARTICIPATION: 1990-2013

The calculation of the employment rate is the number of unemployed people divided by the labor force. To be included in the labor force statistics, a person must be employed or actively seeking employment if they are unemployed. As shown in the Total Labor Force Participation chart, the labor force declined in 2013. The smaller labor force could be due to an increase in Baby Boomer Generation retirements, young workers leaving the region and/or discouraged workers, who are unemployed and have stopped looking for work, thus dropping out of the labor force.

Figure 16 - Total Labor Force Participation (1990-2013)

1990 2000 2005 2010

Source: LAUS: MN DEED \& WI Dept. of Employment

## INDUSTRY TRENDS

This section includes industry trends for the 15-county region, including the current industry mix, employment growth by industry pre- and post-recession, and job projections by industry through 2020.


## INDUSTRY MIX

Figure 17 shows the industry mix for the most recent year, 2013. The pie chart below breaks the regional economy into multiple sectors. The top three sectors - Health Care and Social Assistance, Retail Trade, and Accommodation \& Food Services - account for 44\% of the REIF economic employment. The Educational Services, Public Administration, and Manufacturing sectors account for $25 \%$ of the employment. Together these sectors total $68 \%$ of the total REIF employment in 2013.

Figure 17 - Industry Mix (2013)


Source: Quarterly Census of Employment and Wages: MN DEED \& WI Department of Workforce Development

## PRE/POST RECESSION EMPLOYMENT CHANGE BY INDUSTRY

The employment recovery by industry sector is show in the chart below. This figure shows the percentage change in each industrial sector from 2007 to 2013. The best growth or recovery has been in the Mining, Health Care \& Social Assistance, and Professional \& Technical Services sectors. But thirteen sectors have not recovered the lost employment. These include Information, Agriculture, and Construction.

Figure 18 - Pre/Post Recession Employment Change

| $-40 \%$ | $-20 \%$ | $-10 \%$ |
| :---: | :---: | :---: |
|  | $0 \%$ | Health Care \& Social <br> Assistance <br> Professional \& Oil Extraction <br> Technical Services |
| Other Services |  |  |
| Arts, Entertainment |  |  |
| \& Recreation |  |  |
| Utilities |  |  |



Source: Quarterly Census of Employment and Wages: MN DEED \& WI Department of Workforce Development


## JOB PROJECTIONS BY INDUSTRY

NORTHWEST WISCONSIN

Wisconsin's long-term employment projection for 2010-2020 is estimated for the ten-county region in NW Wisconsin, shown in the table below. The 2010 projections estimated a 10.7 percent overall growth in jobs for the region. The Leisure and Hospitality sector was expected to have strong growth along with the Health Care and Social Services sector. The sector of Professional and Business Services also had good growth potential by 2020.

Table 18 - Employment Projections, Northwest Wisconsin (2010-2020)

| NAICS | NAICS Title | 2010 ANNUAL EMPLOYMENT | $\begin{gathered} 2020 \\ \text { PROJECTED } \\ \text { EMPLOYMENT } \end{gathered}$ | $\begin{aligned} & \hline \text { CHANGE } \\ & (2010- \\ & 2020) \\ & \hline \end{aligned}$ | EMPLOYMENT PERCENT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total All Industries |  | 69,323 | 76,710 | 7,387 | 10.66 |
| Goods-Producing |  | 12,966 | 14,346 | 1,380 | 10.64 |
|  | Natural Res. \& Mining / Const. | 2,546 | 3,139 | 593 | 26.22 |
|  | Manufacturing | 10,420 | 11,207 | 787 | 7.55 |
| Services-Providing |  | 52,220 | 58,104 | 5,884 | 11.27 |
|  | Trade, Transport., \& Utilities | 13,290 | 14,286 | 996 | 7.49 |
| 420000 | Wholesale Trade | 1,910 | 2,057 | 147 | 7.70 |
| 440000 | Retail Trade | 7,950 | 8,347 | 397 | 4.99 |
| 480000 | Transportation and Warehousing | 3,071 | 3,536 | 465 | 15.14 |
| 220000 | Utilities | 359 | 346 | -13 | -3.62 |
|  | Information | 626 | 655 | 29 | 4.63 |
|  | Financial Activities | 2,010 | 2,270 | 260 | 12.94 |
| 520000 | Finance and Insurance | 1,548 | 1,750 | 202 | 13.05 |
| 530000 | Real Estate and Rental \& Leasing | 462 | 520 | 58 | 12.55 |
|  | Prof. \& Business Services | 3,578 | 4,394 | 816 | 22.81 |
| 540000 | Professional, Scientific, and Tech. Svcs. | 1,121 | 1,406 | 285 | 25.42 |
| 550000 | Mgmt. of Companies \& Enterprises | 829 | 939 | 110 | 13.27 |
| 560000 | Admin. \& Support \& Waste Mgmt. \& Remediation Services | 1,628 | 2,049 | 421 | 25.86 |
|  | Education \& Health Svs, plus State \& Local Government | 13,616 | 15,526 | 1,910 | 14.03 |
| 610000 | Edu. Svs, plus State and Local Gov. | 5,842 | 6,196 | 354 | 6.06 |
| 620000 | Health Care and Social Assistance, including State and Local Government | 7,774 | 9,330 | 1,556 | 20.02 |
|  | Leisure and Hospitality | 7,557 | 9,105 | 1,548 | 20.48 |

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[^2]

| $\mathbf{7 1 0 0 0 0}$ | Arts, Entertainment, \& Rec. | 833 | 918 | 85 | 10.20 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| $\mathbf{7 2 0 0 0 0}$ | Accommodation \& Food Svs. | 6,724 | 8,187 | 1,463 | 21.76 |
|  | Other Svs. (Except Govt.) | $\mathbf{2 , 8 3 2}$ | $\mathbf{3 , 1 4 7}$ | $\mathbf{3 1 5}$ | $\mathbf{1 1 . 1 2}$ |
|  | Government | $\mathbf{8 , 7 1 1}$ | $\mathbf{8 , 7 2 1}$ | $\mathbf{1 0}$ | $\mathbf{0 . 1 1}$ |
| Total Self-Employed and Unpaid Family |  |  |  | 4,137 | 4,260 |
| Workers |  |  | 123 | 2.97 |  |

*Due to confidentiality of the data there are industries that suppression and detail may not add to totals. Ashland, Bayfield, Burnett, Douglas, Iron, Price, Rusk, Sawyer, Taylor, and Washburn counties
Source: Office of Economic Advisors, Wisconsin Department of Workforce Development October 2013.
NORTHEAST MINNESOTA
The detailed sector listing of the Minnesota 2010-2013 projections reveal that the sectors of Heath Care and Education had the highest expected growth. All of the Health Care sub-sectors including Hospitals, Other Care Facilities and Administration had large projected growth. The Leisure and Hospitality sector also had good job growth potential. This information is detailed in the Appendix B.

The High Pay/High Demand takes the projection ranking one step further showing the highest growth cross tabulated with high median salary. The higher paying Construction and Contractors' trades populate the ranking. In addition, Professional \& Technical Services and Wood Products Manufacturing sector were predicted to grow significantly. This information was available for Minnesota only and is shown in the table below.

Table 19 - High Demand High Pay Projections 2010-2020

| NAICS | Title | Estimate <br> Year | Estimate Year <br> Employment | Projected <br> Year | Percent <br> Change | Median <br> Salary |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{5 4 1 9}$ | Other Professional \& Technical Services | 2010 | 481 | 2020 | 49.3 | 39936 |
| $\mathbf{4 9 2 1}$ | Couriers | 2010 | 314 | 2020 | 43 | 45656 |
| $\mathbf{2 3 8 9}$ | Other Specialty Trade Contractors | 2010 | 677 | 2020 | 41.8 | 39364 |
| $\mathbf{3 3 6 4}$ | Aerospace Product \& Parts Manufact. | 2010 | 429 | 2020 | 39.9 | 52052 |
| $\mathbf{6 2 1 4}$ | Outpatient Care Centers | 2010 | 857 | 2020 | 37.2 | 37024 |
| $\mathbf{2 3 8 1}$ | Building Foundation/Exterior Contractors | 2010 | 841 | 2020 | 36.7 | 52520 |
| $\mathbf{2 3 7 3}$ | Highway, Street, \& Bridge Const. | 2010 | 373 | 2020 | 34 | 56888 |
| $\mathbf{5 4 1 5}$ | Computer Systems Design \& Rel Svs. | 2010 | 620 | 2020 | 33.9 | 55172 |
| $\mathbf{2 3 8 2}$ | Building Equipment Contractors | 2010 | 1452 | 2020 | 32.2 | 49868 |
| $\mathbf{2 3 6 2}$ | Nonresidential Building Construction | 2010 | 650 | 2020 | 30.8 | 46280 |
| $\mathbf{3 2 1 2}$ | Veneer \& Engineered Wood Products | 2010 | 316 | 2020 | 28.2 | 55068 |
| $\mathbf{3 2 1 9}$ | Other Wood Product Manufacturing | 2010 | 342 | 2020 | 25.4 | 34216 |
| $\mathbf{6 2 1 1}$ | Offices of Physicians | 2010 | 1607 | 2020 | 24.5 | 84916 |
| $\mathbf{4 8 4 1}$ | General Freight Trucking | 2010 | 478 | 2020 | 22.4 | 37128 |
| $\mathbf{3 3 3 1}$ | Ag., Const., \& Mining Machinery | 2010 | 583 | 2020 | 20.2 | 47996 |
| $\mathbf{5 4 1 3}$ | Architectural and Engineering Services | 2010 | 900 | 2020 | 17.8 | 57408 |
| Source: LAus: mN DEeD |  |  |  |  |  |  |

## BIBLIOGRAPHY

Egan-Robertson, D. (2014). Vintage 2013 State and County Age-Sex Projection Methodology: Some Salient Points. Madison, WI: UW-Madison Applied Population Laboratory.

Robertson, M. (2013). Methodology for Minnesota Population Projections, 2013-2065. St. Paul, MN: Minnesota State Demographic Center.

## CONSUMER CONFIDENCE INDICATORS: PREDICTING THE BUSINESS

 CYCLEZamira Simkins, Ph.D., Assistant Professor of Economics, University of Wisconsin-Superior Rubana Mahjabeen, Ph.D., Assistant Professor of Economics, University of Wisconsin-Superior

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The economy-wide fluctuations in economic activity are popularly referred to as a business cycle. As illustrated in Figure 19, business cycle is a short-run alternation between economic downturns and economic upturns. When the economy is booming, consumers and businesses enjoy economic prosperity. When the economy is in a recession, the fortunes reverse. Thus, if a business cycle could be anticipated, its effects could be lessened or shortened. To forecast the business cycle, economists use coincident, leading and lagging economic indicators.

Figure 19: Business Cycle


How the economy is doing today is traditionally described by a single aggregate economic indicator known as Real Gross Domestic Product (GDP). Formally, real GDP measures the inflation-adjusted market value of all final goods and services produced in the economy during a given year. By design, real GDP also serves as a measure of national income corrected for inflation. In other words, real GDP measures how many goods and services the economy actually produces and can afford in a given year, if prices stayed constant.

Since real GDP describes the current state of the economy, it is known as a coincident economic indicator. Other typical coincident economic indicators include: nonagricultural employment, industrial production, and consumption. As shown in Figure 20, significant continuous increases in coincident economic indicators signal an economic expansion. For businesses this means a growing economy, rising revenues, and economic prosperity.

Unfortunately, coincident economic indicators take time to collect. To equip decision-makers with tools enabling them to anticipate the forthcoming fluctuations in the economy, economists developed so-called leading economic indicators. Leading economic indicators, such as the index of consumer expectations, stock prices, and housing permits, tend to move ahead of coincident economic indicators and, therefore, signal where the economy is heading in the future. As shown in Figure 20, leading economic indicators precede the coincident economic indicators. Significant continuous increases in leading economic indicators signal that the economy is about to expand, while significant continuous declines in leading economic indicators signal that an economic contraction is about to happen. Given their ability to predict future economic conditions, leading economic indicators are closely watched by businesses and other decision-makers, as they help them plan for the future. To confirm that changes in leading and coincident economic indicators are not a fluke and represent significant changes in the economy, economists have also developed so-called lagging economic indicators. Lagging economic indicators, such as unemployment, inflation, nominal interest rates and outstanding loans tend to move several time-periods after the economy, or after coincident economic indicators. As shown in Figure 20, lagging economic indicators follow the coincident economic indicators.


Figure 20: Leading, Coincident and Lagging Economic Indicators


Source: Authors' illustration
Together, these three sets of indicators are used to predict and verify turning points in the economy (i.e., peaks and troughs). When interpreting these indicators, business cycles are typically predicted using a 3-D's approach: (i) duration - changes in economic indicators that last at least several time-periods are more likely to be a result of an economic shift, as opposed to random fluctuations, (ii) depth - the greater the percentage change in an economic indicator, the more likely it represents a significant shift in the economy, and (iii) diffusion - the greater the proportion of economic indicators signaling or pointing to the same economic shift, the more likely the economy is about to change.

In Fall 2013, a research group at the University of Wisconsin-Superior (UW-S) started developing regional economic indicators for fifteen northern Minnesota and northwest Wisconsin counties, including the Index of Consumer Sentiment (ICS), Index of Current Conditions (ICC), and Index of Consumer Expectations (ICE). Generally speaking, ICS is designed to gauge consumers' attitudes towards the business environment, personal finances, and consumption spending. ICC is designed to gauge the current state of the economy, or serve as a coincident economic indicator. ICE, a leading economic indicator, is used for business cycle forecasting, as it reflects the consumers' outlook on future economic and financial conditions. This outlook
in turn determines consumer spending behavior, and through a multiplier effect, the overall economic activity and prosperity in the area.

The methodology behind these indices is based on the following:

- Target survey area: 8 Minnesota and 7 Wisconsin counties, including: Koochiching, Itasca, St. Louis, Lake, Cook, Aitkin, Carlton, Pine, Douglas, Bayfield, Ashland, Iron, Burnett, Washburn, and Sawyer county. Since most consumer spending decisions are made on a household level, household numbers were used to generate the survey samples.
- Data collection process: Randomly selected households were contacted over a phone and asked to answer six core survey questions: 5 questions related to three consumer confidence indicators and one question related to the current events topic of population aging (see Appendix C for details). Consumer confidence survey questions were modeled after the University of Michigan consumer survey, and the final question was developed by UW-S researchers.
- Data samples: Starting in Fall 2014, two surveys were conducted, one over a phone and another via e-mail. Phone-based surveys were conducted using a random representative sample of households residing in each county. E-mail surveys were conducted using a roster of previous REIF attendants. Responses were then compared across samples and were found to be statistically different from each other, so it was decided to track the two samples separately from each other. This report presents the phone-based results only, as Fall 2013 e-mail results will be used to establish a baseline set of indices. Phone-based survey sample size, response rate and margin of error for each time period is documented in Table 20 below.

Table 20: Phone-Based Consumer Confidence Survey: Sample, Response Rate and Error

| Time | Complete <br> Responses | Response <br> Rate | Margin of Error, <br> $95 \%$ |
| :--- | :---: | :---: | :---: |
| Fall 2013 | 219 | $6.45 \%$ | $6.62 \%$ |
| Spr. 2014 | 216 | $8.24 \%$ | $6.66 \%$ |
| Fall 2014 | 91 | $21.16 \%$ | $10.27 \%$ |

[^3]- Calculation of indices: using the phone-based consumer survey data, three consumer confidence indices were calculated as follows:

1. Balance by question and county: $\mathrm{Q}_{\mathrm{ij}}=\left(\% \text { positive }_{\mathrm{ij}}-\% \text { negative }_{\mathrm{ij}}\right)^{*}$ weight $_{\mathrm{j}}+100$, where $\mathrm{i}=$ $1 . .5$ indices question number, $\mathrm{j}=1 \ldots 15$ indices county, and $\%$ positive and $\%$ negative stand for percentages of positive and negative responses produced within each time-period respectively. County weights were used to correct for the county non-response error to ensure that results would be representative of households residing in each county and the target area.
2. Balance by question: $Q_{i}=\sum_{j} Q_{i j} / 15$, where $\mathrm{j}=1 \ldots 15$ counties.
3. Indices: $\operatorname{ICS}_{\mathrm{t}}=\frac{\mathrm{Q} 1_{\mathrm{t}}+\mathrm{Q} 2_{\mathrm{t}}+\mathrm{Q} 3_{\mathrm{t}}+\mathrm{Q} 4_{\mathrm{t}}+\mathrm{Q} 5_{\mathrm{t}}}{\mathrm{Q} 1_{\mathrm{b}}+\mathrm{Q} 2_{\mathrm{b}}+\mathrm{Q} 3_{\mathrm{b}}+\mathrm{Q} 4_{\mathrm{b}}+\mathrm{Q} 5_{\mathrm{b}}} ; \quad \operatorname{ICC}=\frac{\mathrm{Q} 1_{\mathrm{t}}+\mathrm{Q} 5_{\mathrm{t}}}{\mathrm{Q} 1_{\mathrm{b}}+\mathrm{Q} 5_{\mathrm{b}}} ; \quad \operatorname{ICE} \mathrm{E}_{\mathrm{t}}=\frac{\mathrm{Q} 2_{\mathrm{t}}+\mathrm{Q} 3_{\mathrm{t}}+\mathrm{Q} 4_{\mathrm{t}}}{\mathrm{Q} 2_{\mathrm{b}}+\mathrm{Q} 3_{\mathrm{b}}+\mathrm{Q} 4_{\mathrm{b}}}$, where Q1... 5 represents question number, $t$ indices time periods, and $b$ indicates base-year values.

The results of phone-based 15-county regional consumer confidence indices are presented in Table 21, and national consumer confidence indicators developed by the University of Michigan are presented in Table 22. By comparing the national and regional indicator trends, it is possible to discern that nationwide and in the 15-county area consumers generally feel that the economy has been growing stronger. Both the regional and national indices for consumer sentiments and consumer expectations show upward trend between the spring months and fall months. However, compared to nationwide indices, regional index of consumer sentiment and index of consumer expectations exhibit more optimism about the future. Alternating in sign month-to-month changes in nationwide indices suggest that consumers are less certain that the economy will rapidly grow in the future and are taking a more cautious outlook of a slow pace of expansion. Analysis of the three regional indices seems to indicate that over the last year households of the surveyed region have started feeling more positive about their own economic and financial conditions, as well as those of the businesses and the nation as a whole. Percentage changes in all three regional indices show a large escalation from spring 2014 to fall 2014 as opposed to fall 2013 to spring 2014. According to the index of current conditions, surveyed households have reported a positive sense of their present situation. This might have led them to be also optimistic about the future, which is reflected in the rising index of consumer expectations.


Table 21: 15-County Regional Consumer Confidence Indicators

| Time | ICS | ICS, <br> Percent <br> Change | ICC | ICC, <br> Percent <br> Change | ICE | ICE, <br> Percent <br> Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall 2013 | 100.00 |  | 100.00 |  | 100.00 |  |
| Spr. 2014 | 100.91 | $0.91 \%$ | 100.26 | $0.26 \%$ | 101.36 | $1.36 \%$ |
| Fall 2014 | 103.83 | $2.89 \%$ | 102.31 | $2.05 \%$ | 104.86 | $3.46 \%$ |

Source: University of Wisconsin-Superior
Table 22: National Consumer Confidence Indicators

|  |  | ICS, <br> Percent <br> Cime | ICS | ICC, | ICC <br> Percent <br> Change | ICE |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | | ICE, |
| :---: |
| Percent |
| Change |,

Source: University of Michigan

As was noted before, the current events topic for this Regional Economic Indicator Forum was aging population. So, a separate question was included in consumer surveys asking respondents to express their opinion on whether population aging, which is larger in our region compared to the nationwide rate, would present more challengers or benefits to our region. Figure 21 presents the results to this question.

Figure 21: Perceived Effects of Older Population: Phone Survey vs. Email Survey Results


Source: University of Wisconsin-Superior
The question asked in the survey was
"The population of our region is reasonably older than the populations of WI, MN and the country as a whole, and it is predicted to stay that way. In your opinion, do you think our older population presents more benefits or more problems to the region? For example, benefits could be due to having more experienced workers and problems could be due to the diminishing productivity of workers."


# REGIONAL EQUITY INDEX: AN ANALYSIS OF THE EQUITY PERFORMANCE OF STOCKS OF LOCAL INTEREST 

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The purpose of this research is to provide information and a financial analysis on the equity performance of companies of local interest in the fifteen counties surrounding the Twin Ports area. This is the second report of an ongoing research project that will track the equity performance of these companies, create an index of local stocks as a way to measure economic activity in the region, examine measures of future performance, and make comparisons to industry averages and market indices.

The first report covered the performance of the index and individual stocks that make up the index over a five year period from January 2, 2009 through December 31, 2013. This report extends the study period through September 30, 2014. This report also provides a look into the future by examining measures that provide forecasts of future performance.

## CONSTRUCTION OF THE INDEX AND INDEX COMPONENTS

The Regional Equity Index (REI) was constructed using publicly traded stocks of companies located in the fifteen counties surrounding the Twin Ports. The initial criteria for inclusion in the REI required that the stock be publicly traded with the firm's headquarters located within the fifteen county area of the study. ReferenceUSA, a business database, was utilized to identify companies that meet the initial criteria. Only two companies located within the fifteen county region met the criteria requiring that the firm's headquarters be located in the region. In order to construct an index that is relevant, additional stocks needed to be included. To increase the size of the index, the criteria was relaxed to include firms who had a significant presence in the region as indicated by the number of employees locally or the significance of regional activity to the overall contribution to the firm. The firms identified using these criteria include the following:

Allete<br>Ascena Retail Group<br>Calumet<br>Canadian National Railway<br>Cliffs Natural Resources<br>Enbridge Energy Partners

Ikonics
Louisiana-Pacific
Polymet
Sappi Limited
UnitedHealth Group
US Steel


A brief profile of each of the companies and a graph illustrating their equity performance over the study period is provided in Appendix D. Of the twelve firms that make up the index, eight of the stocks trade on the NYSE, three trade on NASDAQ, and one trades OTCPK. UnitedHealth Group and Canadian National Railway are considered large-cap firms, Polymet is a small-cap firm, Ikonics is a micro-cap firm, and the remaining eight stocks in the index are mid-cap firms.

The REI is an equally weighted equity index. An equally weighted index treats each stock equally regardless of its market capitalization or economic size. It is assumed that an equal dollar investment is made in each stock at the beginning of the measurement period. Monthly returns for each stock are calculated over the study period beginning January 2, 2009 and ending September 30, 2014. For each month of the study period, returns are calculated by taking the change in the price from one month to the next, divided by the price at the beginning of the month. The prices used to calculate returns are the historical adjusted prices listed on Yahoo! Finance. Adjusted prices are used because these prices reflect any dividends paid or stock splits that may have occurred during the period. Therefore, the adjusted price is a more accurate representation of the true total return to an investor.

Since the REI is composed primarily of mid-cap firms, the index is compared to a benchmark index consisting of the average return of six popular mid-cap equity indices. Using standard benchmarks such as the S\&P 500 or DJIA would not provide a reliable comparison since these indices are constructed using large-cap firms. The benchmark index used for comparison purposes for years 2005-2009 is the average of the CRSP, Dow Jones, Morningstar, MSCI, Russell, and S\&P mid-cap equity indices. The benchmark index for 2014 year-to-date is the S\&P 400 index.

## STOCK PERFORMANCE

Table 23 shows the annual returns for each component of the REI over the study period ending September 30, 2014, the average and median returns for the REI, and the annual returns of the benchmark index.

The performance of the REI components relative to the benchmark index shows the overall performance of the index to be comparable to the market. The average return for the REI exceeded the performance of the benchmark in 2009, 2012, and 2014. In 2010, 2011, and 2013 the index underperformed relative to the benchmark index. However, the trend of the REI is consistent with the trend observed for the market. Calculating the arithmetic average, the holding period return for the REI is $23.73 \%$ and the benchmark index is $19.93 \%$. Using the geometric average, the holding period return for the index is $20.85 \%$ and the benchmark is $19.83 \%$. Both of these averages slightly outperform the benchmark, indicating that the REI performance is comparable to the market over the study period.


Table 23-Annual Returns for REI Components and Benchmark Index, ending 9/30/2014

| REI | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Allete (ALE) | $6.59 \%$ | $\mathbf{1 8 . 9 1 \%}$ | $\mathbf{1 6 . 4 5 \%}$ | $\mathbf{1 5 . 5 0 \%}$ | $22.93 \%$ | $-3.49 \%$ |
| Ascena Retail Group (ASNA) | $115.49 \%$ | $12.52 \%$ | $12.24 \%$ | $23.22 \%$ | $19.82 \%$ | $-32.03 \%$ |
| Calumet (CLMT) | $136.31 \%$ | $25.41 \%$ | $2.97 \%$ | $64.90 \%$ | $-11.49 \%$ | $6.26 \%$ |
| Canadian National Railway | $46.32 \%$ | $23.34 \%$ | $\mathbf{1 8 . 8 6 \%}$ | $\mathbf{1 7 . 4 0 \%}$ | $25.59 \%$ | $27.53 \%$ |
| (CNI) |  |  |  |  |  |  |
| Cliffs Natural Resources | $57.62 \%$ | $63.28 \%$ | $-23 \%$ | $-38.73 \%$ | $-30.86 \%$ | $-58.46 \%$ |
| (CLF) | $113.93 \%$ | $22.99 \%$ | $11.99 \%$ | $-9.36 \%$ | $11.03 \%$ | $27.72 \%$ |
| Enbridge Energy Partners | $9.78 \%$ | $14.97 \%$ | $1.05 \%$ | $19.44 \%$ | $77.71 \%$ | $11.31 \%$ |
| (EEP) | $328.22 \%$ | $29.95 \%$ | $-17.23 \%$ | $134.47 \%$ | $-6.04 \%$ | $-25.27 \%$ |
| Ikonics (IKNX) | $286.96 \%$ | $-26.41 \%$ | $-55.39 \%$ | $-16.67 \%$ | $12.35 \%$ | $-0.93 \%$ |
| Louisiana-Pacific (LPX) | $14.70 \%$ | $6.19 \%$ | $-44.89 \%$ | $25.68 \%$ | $-18.28 \%$ | $31.00 \%$ |
| Polymet (PLM) | $10.63 \%$ | $15.89 \%$ | $38.28 \%$ | $6.91 \%$ | $40.28 \%$ | $19.83 \%$ |
| Sappi Limited (SPPJY) | $41.32 \%$ | $1.30 \%$ | $-55.84 \%$ | $-14.66 \%$ | $15 \%$ | $40.37 \%$ |
| UnitedHealth Group (UNH) | $51.97 \%$ | $17.40 \%$ | $2.01 \%$ | $16.45 \%$ | $13.68 \%$ | $8.79 \%$ |
| US Steel (X) | $97.32 \%$ | $17.36 \%$ | $-7.88 \%$ | $18.76 \%$ | $13.17 \%$ | $3.65 \%$ |
| Median | $39.81 \%$ | $25.72 \%$ | $-1.41 \%$ | $17.09 \%$ | $35.44 \%$ | $2.95 \%$ |
| Average |  |  |  |  |  |  |

Figure 22 illustrates the growth of $\$ 100$ invested in the REI on January 2, 2009 and held until September 30, 2014. The growth trend of the $\$ 100$ investment in the REI is compared to the trend of $\$ 100$ invested in the S\&P 400 over the same period of time. The S\&P 400 is chosen because it is a mid-cap index, which provides the most meaningful comparison to the REI, and monthly data was available to calculate the returns for the S\&P 400 over the five-year study period. The ending value of the REI is $\$ 239.43$ and the ending value of the S\&P 400 is $\$ 209.12$. The trend for the REI closely mirrors the market and slightly outperforms the S\&P 400.


Figure 22-Growth of $\$ 100$ Invested in the REI and the S\&P Index


## MEASURES OF FUTURE EXPECTATIONS

Predicting future stock price performance accurately and consistently is an impossible task. However, research has shown that certain measures are more effective in predicting future performance than others. Two companies, Value Line ${ }^{\circledR}$ and Morningstar ${ }^{\circledR}$, are well known for providing measures that are useful in predicting the future performance of firms. This study makes use of data from both of these sources.

## VALUE LINE ${ }^{\circledR}$ MEASURES

## TIMELINESS AND PERFORMANCE RANK

The Timeliness Rank provides a measure of predicted stock price performance relative to the market over the next year. The measure is based on historical price and earnings data, recent price and earnings trends, and recent unexpected earnings events. The highest possible rank is 1 and the lowest is 5 . Stocks ranked 1 and 2 are expected to outperform the market, stocks ranked 3 are expected to mirror the market, and stocks ranked 4 and 5 are expected to underperform the market. The Performance Rank is similar to the Timeliness Rank but is typically used for smaller capitalization firms.


As can be seen in Table 24, the average Timeliness/Performance Rank for the REI is slightly above average at 2.7. This suggests that on average the price performance of the REI should do slightly better than the market over the next year. US Steel has a rank of 1 indicating it is expected to outperform the market. Calumet and lkonics have a rank of 2 , indicating they are expected to do above-average relative to the market. US Steel and Calumet showed improvement in rank from the previous study period. Cliffs Natural resources and LouisianaPacific both showed a decline in rank with Louisiana-Pacific expected to have below-average performance based on a rank of 4 . Value Line ${ }^{\circledR}$ did not provide any measures for Sappi Limited.

## SAFETY RANK

The Safety Rank measures the potential risk of an individual stock. It is based on the stability of the stock price over time and the financial strength of the firm. The highest possible Safety Rank is 1 and the lowest is 5 . A conservative investor, who is mainly concerned with safety, would typically invest in stocks with a rank of 1 or 2.

As illustrated in Table 2, the Safety Rank for the REI is 3.0, which makes the REI average in terms of potential risk. UnitedHealth Group has a rank of 1. Allete, Canadian Railway, and Enbridge have a rank of 2, which indicates above average safety. Cliffs Natural Resources, Ikonics, Louisiana-Pacific, Polymet, and US Steel have a rank of 4, which indicates a below average level of safety.

## TECHNICAL RANK

The Technical Rank provides an estimation of stock price performance relative to the market over the next three to six months. Unlike the Timeliness and Performance Ranks which provide a longer term estimate, the Technical Rank is focused on short term price estimates. The measure is based on the stock's price performance during the past year relative to the market. Stocks ranked 1 and 2 are expected to outperform the market over the next three to six months. Stocks ranked three are expected to mirror the market over the short term and stocks ranked 4 and 5 are expected to underperform the market over the short term.

The average Technical Rank for the REI is 2.6, indicating that the index is expected to have slightly better performance than the market over the next three to six months. Ascena, Calumet, Cliffs Natural Resources, and Enbridge have a rank of 2, indicating they are expected to outperform the market over the short term. All four of these firms showed improvement in the Technical Rank from the previous study period. Polymet has a rank of 5 , indicating it is expected to underperform relative to the market over the short term. Based on the Timeliness Rank and the Technical Rank, Ascena, Cliffs Natural Resources, Enbridge, and LouisianaPacific are expected to have better performance over the short term with a slight decline in

performance the rest of the year. Polymet and US Steel are expected to show an improvement in performance over the long term.

## STOCK PRICE STABILITY

Stock Price Stability measures the weekly volatility of the stock price relative to the stock's volatility over the past five years. The ranks range from 100 (highest stability) to 5 (lowest stability).

The average Price Stability for the REI is 45.0 , which is slightly below average. Allete, Canadian National Railway, and Enbridge had the highest price stability, with ranks ranging from 90 to 95, indicating a relatively low level of risk. Cliffs Natural Resources, Ikonics, Louisiana-Pacific, Polymet, and US Steel had the lowest price stability, with ranks ranging from 5 to 15 , indicating a high level of risk. The Price Stability rank for these firms is consistent with the volatility of the returns shown in Table 24 over the study period.

## PRICE GROWTH PERSISTENCE

Price Growth Persistence is a measure of the historical stock growth trend of an individual stock relative to the price growth trend of the market. In other words, it measures the tendency of a stock to show persistent growth. The ratings range from 100 (highest) to 5 (lowest).

The Price Growth Persistence average for the REI is 44.1, indicating it is slightly below average in terms of consistent price growth. Ascena and Canadian National Railway showed above average persistence in price growth, while Louisiana-Pacific, Polymet, and US Steel are well below average. Seven of the firms in the REI Index showed a decline in the Price Growth Persistence measure.


Table 24 - Value Line Measures

|  | Timeliness/ <br> Performance | Safety | Technical | Price <br> Stability | Price <br> Growth |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Allete (ALE) | 3 | 2 | 3 | 95 | 40 |
| Ascena Retail Group (ASNA) | 3 | 3 | 2 | 50 | 75 |
| Calumet (CLMT) | 2 | 3 | 2 | 45 | 30 |
| Canadian National Railway (CNI) | 3 | 2 | 3 | 90 | 95 |
| Cliffs Natural Resources (CLF) | 3 | 4 | 2 | 5 | 40 |
| Enbridge Energy Partners (EEP) | 3 | 2 | 2 | 90 | 45 |
| Ikonics (IKNX) | 2 | 4 | 2 | 10 | 60 |
| Louisiana-Pacific (LPX) | 4 | 4 | 2 | 15 | 25 |
| Polymet (PLM) | 3 | 4 | 5 | 5 | 5 |
| Sappi Limited (SPPJY) | $*$ | $*$ | $*$ | $*$ | $*$ |
| United Health Group (UNH) | 3 | 1 | 3 | 75 | 55 |
| US Steel (X) | 1 | 4 | 3 | 15 | 15 |
| Average | 2.7 | 3.0 | 2.6 | 45.0 | 44.1 |

## MORNINGSTAR ${ }^{\circledR}$ MEASURES

Financial statements can be useful in predicting future earnings, dividends, cash flows, and a variety of other factors. They can be used as a way to anticipate future conditions, identify strengths and weaknesses, provide information about past performance, and forecast future performance. Financial ratios are a convenient way to summarize large quantities of financial data into a single number that can be used to measure performance. The use of ratio analysis allows you to put financial statement figures into perspective. However, the ratios by themselves are meaningless unless compared to some standard. Ratios are typically compared to an industry average or to the trend of the firm. A cross-sectional analysis compares the ratios of the firm to some standard at a specific point in time. The objective is to look for deviations from the norm. A time-series analysis compares the ratios of a single firm to itself over time.


The objective is to look for trends to determine whether performance is improving or deteriorating.

Price ratios are often used to measure investors' expectations of future stock price performance. They are typically compared to the industry average. A higher price ratio is generally considered better. A higher ratio typically means that investors' expect future performance will be better.

## PRICE-TO-EARNINGS

The Price-to-Earnings ratio is calculated by dividing of the firm's current stock price by its earnings per share. A high P/E ratio usually indicates investors are expecting high earnings growth in the future. As an investor this is generally good news. However, a high P/E ratio can be the result of a high price or the result of low earnings per share. The average market P/E ratio is 20 to 25 times earnings. It is most useful to compare the ratio to the industry average or to the firm's historical P/E ratios. Although it is mathematically possible to have a negative P/E ratio, the ratio is generally not reported if earnings are negative.

The P/E ratios reported by Morningstar ${ }^{\circledR}$ show that Allete, Canadian National Railway, and UnitedHealth Group compare favorably to their industry averages. All of them, except Canadian National Railway, are slightly below their respective industry average. Ascena and Cliffs Natural Resources have ratios that are significantly below their industry average. Ikonics and LouisianPacific have P/E ratios that are significantly higher than the industry average. Although high P/E ratios are generally considered better, the Ikonics and Louisiana-Pacific ratios may be an indication that the stock is currently overpriced.

The P/E ratio for the REI is 62.03 . This is quite high when compared to the average market $P / E$ ratio of 20 to 25 times earnings. However, the extremely high P/E ratio of Louisiana-Pacific skewed the results. If Louisiana-Pacific is excluded from the calculation, the average $\mathrm{P} / \mathrm{E}$ ratio is 21.6 , which is comparable to the average market P/E ratio.


Table 3. Price Ratio Measures

| REI | Price-to-Earnings |  | Forward Price/Earnings | $\begin{aligned} & \text { PEG } \\ & \text { Ratio } \end{aligned}$ | PEG <br> Payback | Short Ratio | Shares Short \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Firm | Industry |  |  |  |  |  |
| Allete (ALE) | 17.7 | 19.3 | 14.5 | 2.4 | 9.7 | 15.61 |  |
| Ascena Retail Group (ASNA) | 15.3 | 22 | 10.43 | 0.7 | 6.1 | 5.32 | 5.31 |
| Calumet (CLMT) | * | 13.5 | 18.13 | 1.3 | 9.3 | 2.88 | -11.49 |
| Canadian National Railway (CNI) | 23.3 | 21.4 | 15.9 | 1.5 | 9.2 | 7.09 | 25.09 |
| Cliffs Natural Resources (CLF) | 28.7 | 119 | 6.4 | 0 | * | 8.53 | 12.85 |
| Enbridge Energy Partners (EEP) | * | 40 | * | 4.4 | 15.4 | 12.57 | 13.59 |
| Ikonics (IKNX) | 39.5 | 17.2 | * | * | * | 1.00 | -50.46 |
| Louisiana-Pacific (LPX) | 294.1 | 42.9 | 13.4 | 9 | 23.2 | 7.63 | 4.64 |
| Polymet (PLM) | * | 119 | * | * | * | 25.65 | -1.73 |
| Sappi Limited (SPPJY) | * | 217.4 | 26.5 | * | * | 1.03 | -9.21 |
| United Health Group (UNH) | 15.6 | 17 | 11.7 | 1.6 | 8.4 | 6.06 | -18.36 |
| US Steel (X) | * | 59.2 | 32.3 | 0.3 | 4.6 | 5.59 | 3.07 |
| Average | 62.03 | 36.97 | 16.58 | 2.36 | 10.74 | 8.25 | -5.21 |

## FORWARD PRICE-TO-EARNINGS

The Forward Price-to-Earnings ratio is calculated by dividing the firm's current market price per share by the expected earnings per share. It is a way to compare current earnings to estimated future earnings. If earnings are expected to grow, the Forward P/E ratio will be lower than the current P/E ratio. Therefore, a low Forward P/E ratio relative to the current P/E ratio is considered better.

Of the six companies that had data on Morningstar ${ }^{\circledR}$ for the current $P / E$ and the Forward $P / E$ ratios, all of them showed a lower Forward P/E ratio than their current P/E ratio. This indicates future earnings are expected to grow for these companies.

## PRICE-TO-EARNINGS-TO-GROWTH (PEG)

The PEG ratio is calculated by dividing the P/E ratio by the growth rate of the firm's annual earnings per share. It is considered a better measure of expected price performance than the


P/E ratio because it considers the firms growth in earnings. A high P/E ratio may look attractive to an investor, but when the firm's growth rate is considered, it may not look as appealing. A lower PEG ratio generally indicates the stock may be undervalued. However, the relationship between the PEG ratio and valuation varies from industry to industry.

A general rule of thumb is that a PEG ratio less than one is considered desirable. A PEG ratio equal to one indicates that the stock is fairly priced, a PEG ratio greater than one indicates the stock is overvalued, and a PEG ratio less than one indicates the stock is undervalued. Louisiana-Pacific has a PEG ratio of 9 , indicating it is significantly overvalued. Allete, with a PEG ratio of 2.4, and Enbridge, with a PEG ratio of 4.4, also seem to be overvalued. Calumet, Canadian National Railway, and United Health Group are slightly overvalued, with PEG ratios ranging from 1.3 to 1.6. Ascena Retail Group, Cliffs Natural Resources, and US Steel are slightly undervalued, with PEG ratios ranging from 0.0 to 0.7.

## PEG PAYBACK PERIOD

The PEG payback period is the amount of time it would take an investor to double their money in a stock investment. A longer PEG payback period indicates the investment is riskier. All of the PEG payback ratios calculated for the REI components appear to be in a reasonable range except for Enbridge with a PEG Payback of 15.4 and Louisiana-Pacific with a PEG Payback of 23.2. All of the PEG Payback periods increased from the last study period, indicating an increased level of risk to investors.

## SHORT INTEREST RATIO

Short selling allows an investor to profit from declining stock values. A short sale is the opposite of taking a long position in stocks. When an investor buys a stock with the hope that the price will rise, they are taking a long position. If an investor feels that the price of a stock is going to fall, they can take a short position. In a short sale the investor borrows the stock from a broker and sells the stock at the current market price. If the price declines, the investor can cover their position by buying the stock in the open market at the lower price, repaying the broker, and realizing a gain.

Short interest is the total number of shares of stock that have been sold short by investors but have not yet been covered. Short interest is an indicator of investor sentiment in the market for a specific stock. A large change in a stock's short interest from month to month can be a very telling indicator of investor sentiment. If short interest increases, it means there are more investors who believe the stock price will decline.

The short interest ratio is the number of shares sold short (short interest) divided by the average daily volume. The ratio reflects the number of days it would take short sellers to cover their

positions. The higher the ratio, the longer it will take to buy back the borrowed shares. A short interest ratio of five or greater is considered a bearish signal and a ratio below five would be considered a bullish signal.

Nine of the firms in the REI Index have short interest ratios ranging from 5.32 to 25.65 , indicating investors are not very confident the stock price will increase over the short term. Only three of the firms in the REI have ratios below 5.0, indicating investors are bullish on these stocks. The average short interest ratio for the REI Index is 8.25 , indicating a bearish sentiment by investors.

The percentage change in short interest shows a significant change in investor sentiment for Allete, Canadian National Railway, Ikonics, and UnitedHealth Group in a positive direction, indicating many investors believe the stock price will rise in the short term. Each of these firms had a decline in the percentage change in short interest. Canadian National Railway showed an increase of $25.09 \%$ in short interest indicating many investors believe the stock is overvalued and expect values to decline. The percentage change in short interest for the remainder of the stocks in the REI was relatively small, with four of the firms showing a slight improvement in investor sentiment and five firms showing a lack of investor confidence.

## CONCLUSION

Although the REI showed a small positive return of $3.65 \%$ year-to-date, the overall performance of the index is slightly above average when compared to the benchmark return of $2.95 \%$. Ascena (-32.03\%), Cliffs Natural Resources (-58.46\%), and Louisiana-Pacific (-25.27\%) had large negative returns which had a strong influence on the overall performance of the index. Offsetting the large negative returns were strong performances by Canadian National Railway ( $27.53 \%$ ), Enbridge ( $27.72 \%$ ), Sappi ( $31.0 \%$ ), and US Steel ( $40.37 \%$ ). Stock valuations were significantly impacted by the large market decline the last month of the study period.

The Value Line ${ }^{\circledR}$ Measures indicate that the stocks in the REI are consistent with market expectations of future performance. Although there are slight deviations from the indicator average for a few of the individual stocks, the index is very consistent and comparable to the market for most stocks and most measures. There does appear to be some deterioration in the Safety rank for some stocks, indicating a slightly higher level of risk.

The Price-to-Earnings ratio for the REI is consistent with the market and the Forward Price-toEarnings ratio for each stock in the index showed positive expectations for future earnings. The Short Interest ratio shows investors are mixed about short term expectations of performance for most of the stocks in the index. Nine of the stocks in the index have a short interest ratio greater than five, an indicator investors believe stock prices will fall. Overall, it appears that investors' expectations of future performance of the stocks in the REI are mixed.

## National Bank of Commerce

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## NORTHLAND BUSINESS CONFIDENCE SURVEY

Robert Hoffman, Ph.D., Assistant Professor of Economics at the School of Business and Technology, the College of St. Scholastica. Student Researchers: Kailee Ogden, Sam Hoffman, Eric Fryc, Ana Maria Camelo Vega.

The Northland business confidence survey was created by the College of St. Scholastica's Economic Research Team and distributed by the region's chambers to local businesses in September and early October of 2014. The College received a total of 126 responses, 52\% of which came from small businesses boasting 1-19 employees.

The region registered strong business confidence with a Northland Business Confidence Index reading of 110 , where any reading above 100 indicates optimism. This was very similar to last year's reading of 111 . Overall business activity for the previous six months was positive, and businesses forecasted business activity to moderately increase in the Northland region over the next six months.

During the previous six months, selling prices saw large increases and maintained their relative position in projections for the following six months, indicating no danger of deflationary pressures. Businesses reported increases in the number of employees and average hours worked, with the latter increasing more substantially.

While businesses have indicated they are optimistic about the direction of business activity in the Northland region, they reported the following factors as most limiting their ability to generate growth. The five factors that businesses identified as most hindering business activity were competition within their own sector, demand, government policy, shortage of skilled labor, and cost of labor.

Businesses with 50-249 employees exhibited the most confidence out of the size categories with the vast majority reporting a moderate to significant increase in business activity. The leisure and hospitality industry was the strongest of those analyzed, reporting significant growth and a strong indication to continue. Education and health services were the least confident of the industries analyzed. However, the level of confidence reported was mixed rather than poor.

Respondents were also asked to identify the anticipated impacts on their demand for skilled labor, productivity, and level of business activity as they pertained to the region's aging demographic. The majority of businesses surveyed did not foresee the aging population having any impact on their demand for skilled labor, level of productivity, or level of businesses activity. Businesses who reported those factors to be impacted often reported an increase in each factor.


NORTHLAND BUSINESS CONFIDENCE SURVEY: FINDINGS AND ANALYSIS

The region expressed fairly strong business confidence, registering a reading of 110 on the Northland Business Confidence Index, where any reading above 100 indicates confidence and optimism. This is down slightly from last year's reading of 111 but still indicates the region's businesses are doing well and will continue to do so in the months ahead.

Over the past six months, 46 percent of businesses reported an improvement in their company outlook with 51 percent improving their assessment of general business activity. Over the next six months, the numbers for the same factors are projected to stand at 50 percent and 52 percent, respectively. This, coupled with the decreases in the percentage of respondents projecting any sort of decline in either, indicates that the region's businesses are largely confident on a general level.

Table 25-Outlook/General Business Activity, Previous Six Months


Table 26 Outlook/General Business Activity, Next Six Months


On a more specific level, the results for the past six months matched up well with the general metrics discussed previously. Sales revenue improved for over half of the region's businesses, translating to profits for over 40 percent of them. However, 22 percent of businesses had reductions in their revenue and even more, 28 percent, had declines in their revenue. This suggests that there is relatively significant variance in the performance of the region's businesses.

Selling prices rose for more than 30 percent of businesses, which could indicate some confidence in the health of the regional market and its consumers. Similarly, capital expenditures were up moderately for 38 percent and significantly for another 9 percent, indicating expansion and satisfaction with the levels of risk and return in the regional economic environment.

The level of employment in the region increased in 35 percent of businesses and average hours worked increased moderately in 34 percent and significantly in another 9 percent. While the 13 percent of businesses who cut back on their number of employees was higher than some of the other metrics, it's not enough to detract from the strong employment tendencies of regional companies in the past six months.

The projections for the next six months suggest that businesses feel that many of these factors will stabilize. For instance, for every metric, at least 48 percent of all businesses expect no changes to occur. The businesses who do project changes mostly expect them to be increases.


Revenues are expected to climb for more than 40 percent of businesses and profits are set to climb for 37 percent. The proportion of those expecting declines in either metric is set to drop dramatically compared to the last six months. This suggests that businesses believe their performance over the next six months will be more uniform and largely positive.

Capital expenditures are expected to continue their climb for 37 percent of businesses, suggesting that the environment continues to be kind to companies looking for investments or expansions. While nearly 70 percent of businesses do not expect selling prices to change in the next six months, 28 percent expect to increase them and only 4 percent think they'll be cut. The downward pressure on prices that has been affecting some parts of the nation and worrying federal policymakers does not appear to be occurring in this region.

While employment is largely expected to stabilize or increase slightly in most of the businesses over the next six months, average hours worked is expected to continue its climb, albeit at a more relaxed pace. All of this indicates that the labor market in the region continues to look strong.

Table 27 Business Indicators, Previous Six Months


Table 28 Business Indicators, Next Six Months


When asked to choose three factors most limiting business activity in the region, competition within the sector ( 33 percent), demand (33 percent), government policy ( 25 percent), shortage of skilled labor ( 25 percent), and cost of labor ( 21 percent) emerged as the major problem areas.


## PROFESSIONAL SERVICES

The professional services industry expressed general confidence in the region's current economic climate. The majority of businesses reported improvements in both their company outlook and their assessment of general business activity in the previous six months and expected even more improvement in the following six. This indicates that the region's professional services industry is strong and should build on that strength in the future.

Table 29 Professional Services Outlook/General Business Activity, Previous Six Months



# Table 30 Professional Services Outlook/General Business Activity, Next Six Months 



The robust confidence that firms had on a general level may stem from nearly 40 percent of businesses reporting increasing profits and sales revenue over the last six months. Significant increases in capital expenditures were also reported by 11 percent of businesses, with another 22 percent reporting moderate increases. These gains translated into positive, but conservative, projections for the next six months. Perhaps a result of the encouraging climbs in revenue and profit, selling prices were projected to rise for 39 percent of firms - significantly so for 6 percent. Zero firms expected a reduction in the number of employees with 28 percent of businesses expecting moderate increases in their level of employment. Although significant declines were projected in capital expenditures and profits by 6 percent of businesses, improvements were expected for the industry as a whole.


Table 31 Professional Services Business Indicators, Previous Six Months


Table 32 Professional Services Business Indicators, Next Six Months


The top three factors that are limiting business growth in professional services throughout the region are demand, a shortage of skilled labor, and competition from within the industry. The broader concerns of the professional services industry tracks closely with those of the region.

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## HEALTH SERVICES

Confidence in the health services industry was the most mixed of the industries analyzed. While the industry expressed confidence on a more general level, their varied behavior on an individual level provided some cause for concern. However, much of the variance took place over the past six months and is expected to mostly stabilize in the next six months.

Table 33 Health Services Outlook/General Business Activity, Previous Six Months


Table 34 Health Services Outlook/General Business Activity, Next Six Months


For instance, 36 percent of businesses reported decreases in revenue over the previous six months, while 50 percent reported increases. More worryingly, 14 percent of businesses had a sharp reduction in profits during that period and another 29 percent posted moderate declines. Although 43 percent still posted increases in profits, the average health services company posted declines. In the coming six months, 23 percent of businesses expect an increase in revenue while the same percentage expects a decrease. Profits will still be a major problem area with only 15 percent of businesses expecting an increase and 31 percent projecting a fall.

Capital expenditures was the only indicator that the health services industry performed better in than the region as a whole. Roughly 57 percent of businesses increased their capital expenditures in the last six months - and 14 percent did so significantly - while less than 10 percent decreased them. Nearly 40 percent expected further increases in their level of capital expenditures in the next six months, suggesting that the economic environment and the longer term outlook for the company is ideal for investment.

Employment, which was increased moderately by 27 percent of businesses and significantly by 13 percent in the previous six months, was one of the brightest spots in forecasting the next six. More than a third of firms are expecting further increases in the next six months, though it's worth noting that over a fifth are expecting to reduce their number of employees. Similarly, average hours worked is expected to decline in over 20 percent of businesses and rise in only 14 percent. Whether this is the result of the previously mentioned uptick in hiring being more part-time based or out of necessity to cut costs is not clear.

Table 35 Health Services Business Indicators, Previous Six Months


Table 36 Health Services Business Indicators, Next Six Months


None of the problems in the health services industry seem to be related to demand. Instead, when asked which factors were limiting business activity, legislation related to healthcare (67\%), government policy ( $47 \%$ ), competition within the sector ( $27 \%$ ), and the cost of labor ( $27 \%$ ) were the dominant choices.

## FINANCIAL SERVICES

The financial services industry expressed slightly more business confidence than the region as a whole and, with a few caveats, seemed optimistic about that trend continuing into the future. Company outlook, which increased moderately for 29 percent of businesses and significantly for another 21 percent, is projected to climb for a full 50 percent of businesses in the next six months. Similarly, approximately three-fourths of businesses expected general business activity to improve in the next six months - the same proportion who had reported an improvement in the previous six.


Table 37 Financial Services Outlook/General Business Activity, Previous Six Months


Table 38 Financial Services Outlook/General Business Activity, Next Six Months


This confidence is likely related to the success that businesses in the industry have had over the previous six months. Revenues increased for 57 percent of businesses and profits rose for 64 percent. It is important to note that these gains weren't seen across the entire industry, as revenue and profits declined for 14 and 21 percent of businesses respectively. On average, however, the industry was performing well. It looks likely to continue to perform strongly in the months ahead, as revenue and profits are both expected to climb for at least 44 percent of firms.

[^5]

Employment picked up for a modest amount of businesses, while a larger proportion of respondents reported more significant gains in average hours worked over the previous six months. While employment is projected to largely level off in the next six months, average hours worked is still expected to continue its gains.

Capital expenditures were the most mixed of the five indicators respondents were asked about, with more businesses expecting declines than increases in the metric over the coming six months. This follows a period in which capital expenditures had risen for 46 percent of firms, but fallen for 23 percent - a third of which had significant declines. Given the nature of the financial services industry and the relative lack of physical assets, this trend is not as concerning or indicative of economic woe as it would be for most other industries.

Table 39 Financial Services Business Indicators, Previous Six Months


Table 40 Financial Services Business Indicators, Next Six Months


Government policy, competition within the sector, and demand easily stood out as the three factors that posed the greatest challenge to expanding business activity in the region's financial services industry. All three were chosen by at least 43 percent of businesses, while the next closest factor, cost of labor, was 14 percent.

## NON-PROFITS

The region's non-profit industry expressed mostly mixed and neutral business confidence. On a more general level non-profits were optimistic about the outlook for their company and for general business activity. However, that optimism mostly retreated into neutrality when they were asked to evaluate indicators on a more specified, individual level.

For instance, over half of businesses in the industry projected improvements in both their company outlook and evaluation of general business activity in the coming six months. This comes on the heels of a period in which less optimism and more pessimism was expressed in response to each of these questions.


Table 41 Non-Profits Outlook/General Business Activity, Previous Six Months


Table 42 Non-Profits Outlook/General Business Activity, Next Six Months


Of the metrics that respondents were asked to evaluate, average hours worked was the only one where the industry as a whole displayed noteworthy optimism in the past six months, with 43 percent of businesses reporting increases. Over 30 percent reported gains for sales revenue, but the same proportion reported declines. Profits were down moderately for 15 percent and significantly for another 15 percent, while only 23 percent reported an increase. While most businesses expressed neutrality when projecting the next six months, capital expenditures,

revenues, and profits were all expected to improve for 31 percent of businesses, with 29 percent projecting increases in average hours worked.

Table 43 Non-Profits Business Indicators, Previous Six Months


Table 44 Non-Profits Business Indicators, Next Six Months


When asked to pick the three factors that are limiting their ability to increase business activity, cost of labor (29 percent), shortage of skilled labor (29 percent), and weather conditions (21 percent) topped the list. Also, being selected by 29 percent of respondents was the option of "none." For an industry lacking the economic enthusiasm and confidence seen throughout the rest of the region, it is troubling that respondents were largely unable to pinpoint specific factors holding back their level of business activity.

## EDUCATION

The education industry is among the least confident of any industry in the report. The previous six months were bad ones for the average business on both a general and specific level. However, there are some encouraging signs and expressions of optimism in projections for the next six months. The results suggest that the region's educational industry may be ready to put the worst behind them.

Company outlook and assessment of general business activity both declined for approximately 60 percent of businesses in the past six months. However, in projecting the next six months, half of all businesses forecasted improvements in both categories. This came with a dramatic reduction in the proportion of firms expecting further declines.

Table 45 Education Outlook/General Business Activity, Previous Six Months



Table 46 Education Outlook/General Business Activity, Next Six Months


Although sales revenue climbed for 33 percent of businesses in the past six months, it also declined for 22 percent of them. Further, it failed to translate into profits, as only 10 percent of firms increased their profits. Even more troublesome, 50 percent of firms saw a reduction in their profits and 44 percent reduced their number of employees. The lone display of encouragement in the past six months came in capital expenditures, as 40 percent of institutions increased this metric - 10 percent doing so significantly.

There is more stability in the projections for the coming six months, as each indicator isn't expected to change for at least half of all businesses. No firms expect a reduction in revenue and while there are still more businesses expecting profits to fall than there are expecting them to rise, it's not as dramatic as it had been. Additionally, more hours will be worked at 40 percent of institutions and there are more respondents expecting increases in their number of employees than decreases, a major shift from the previous six months.


Table 47 Education Business Indicators, Previous Six Months


Table 48 Education Business Indicators, Next Six Months


Demand and competition within the sector were tied for the most frequently listed factor preventing pickups in business activity in the sector, both being chosen by 50 percent of respondents. Shortage of skilled labor, cost of labor, and government policy rounded out the top five and were choices of at least 20 percent of respondents.

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## LEISURE AND HOSPITALITY

Of all industries analyzed in this report, leisure and hospitality was by far the best performing and the most confident. Approximately 60 percent of respondents reported improved company outlooks and evaluations of general business activity over the previous six months. Such optimism became even more enthusiastic in the next six months, as the proportion of companies expecting significant improvements in both areas climbed substantially and the proportion expecting declines fell.

Table 49 Leisure and Hospitality Outlook/General Business Activity, Previous Six Months



# Table 50 Leisure and Hospitality Outlook/General Business Activity, Next Six Months 



A similar story emerged when analyzing behavior on the company level, as all five metrics being measured improved in at least 56 percent of businesses. Revenues increased in 78 percent of firms, translating to profit increases in 67 percent. Selling prices and capital expenditures significantly increased for 22 percent of businesses, in addition to moderate hikes in another 44 percent.

The projections for the next six months indicate confidence that even more growth is set to occur in nearly all areas. Revenues and profits are expected to grow in 80 percent and 70 percent of firms respectively. Capital expenditures are likely to increase in 90 percent of firms in the industry, as are selling prices. Employment is the only area that fails to match or exceed the growth of the previous six months, though 40 percent of firms still expect more hours worked and 20 percent expect more hiring to occur.


Table 51 Leisure and Hospitality Business Indicators, Previous Six Months


Table 52 Leisure and Hospitality Business Indicators, Next Six Months


The questions all ask for seasonally adjusted readings and projections for all indicators, which suggests that the firms in the leisure and hospitality are simply in the midst of a strong and successful period. Still, there is room for improvement. Respondents, who could pick up to three factors, picked cost of labor (50 percent), demand (50 percent), competition within the sector ( 40 percent), and shortage of skilled labor ( 40 percent) as the factors most limiting business activity.

[^6]

## 1-49 EMPLOYEES (67\% OF TOTAL RESPONDENTS)

Small businesses in the region have similarly strong confidence to that of the region as a whole. The majority of the survey was filled out by respondents from businesses with less than 50 employees and, unsurprisingly, the results for such businesses tracked closely with the overall results.

In the previous six months, company outlook had improved for nearly 40 percent of businesses and the assessment of general business activity had improved for over half. This trend was expected to continue and even accelerate in the next six months due to a lower percentage expecting decreases for either question; and approximately 50 percent of all businesses expecting an improvement in both outlook and general business activity.

Table 53 1-49 Employees Outlook/General Business Activity, Previous Six Months


Table 54 1-49 Employees Outlook/General Business Activity, Next Six Months


Over the past six months, roughly 30 percent of businesses reported moderate increases in average hours worked, number of employees, and selling prices while the proportion reporting decreases in each metric was relatively low. Sales revenue and profits increased for many businesses, but also fell for over 20 percent of businesses, suggesting that the performance of small businesses in the region is not uniform.

The projections for the next six months were much more stable than the previous six, with no change being reported by over half of all businesses in each metric except for sales revenue which still came in at 46 percent. However, the positive trend is still expected to continue across all indicators, with capital expenditures continuing its acceleration and the gains in the number of employees slowing.


Table 55 1-49 Employees Business Indicators, Previous Six Months


Table 56 1-49 Employees Business Indicators, Next Six Months


The five factors most limiting business activity were demand, competition within the sector, government policy, cost of labor, and shortage of skilled labor. These tracked closely with the region as a whole.


## 50-249 EMPLOYEES (17\% OF TOTAL RESPONDENTS)

The medium sized businesses in the region display relatively strong confidence and optimism and look set to improve in the months ahead. The last six months saw 42 percent and 47 percent of businesses reporting improvements in their company outlook and evaluation of general business activity. Improvements on those two factors in the next six months were expected in 62 percent and 53 percent of businesses. Although this is obviously a positive trend, it is worth noting that 10 percent of companies believe their company outlook will significantly worsen in the next six months, a number that had been zero percent in the previous six.

Table 57 50-249 Employees Outlook/General Business Activity, Previous Six Months


Table 58 50-249 Employees Outlook/General Business Activity, Next Six Months


Following a similar pattern, the six month projections for the more specific company indicators extended the optimism that was present in the previous six. While sales revenue and profits both increased for over 40 percent of medium sized businesses in the last six months, revenues were expected to rise for 53 percent of firms and profits were expected to climb for 60 percent. Medium sized businesses were the only type of business evaluated in this report to have a higher percentage of businesses projecting profit increases than revenue increases, suggesting that the businesses within this category are more efficient in their profit maximization.

Table 59 50-249 Employees Business Indicators, Previous Six Months


[^7]Table 60 50-249 Employees Business Indicators, Next Six Months


Despite this expected level of performance, there are still many challenges that medium sized businesses face, as evidenced by their choices for factors limiting business activity. Competition within the sector and shortage of skilled labor each were selected by 48 percent of respondents, with government policy, demand, and cost of labor rounding out the top five. The proportion of businesses selecting shortage of skilled labor ( 48 percent) and government policy ( 43 percent) is more than double what it is for the other two size categories.

## 250+ EMPLOYEES (17\% OF TOTAL RESPONDENTS)

Large businesses in the region had moderate confidence and optimism and appear to be set for a period of stability and steady improvement following a more varied six month stretch. On a more general level, the proportion of businesses who reported an improved company outlook (48 percent) and improved assessment of general business activity (48 percent) in the past six months was not radically different from the proportion in the projections for the next six. However, the major difference was the substantial percentage decrease in the number of firms projecting any sort of decline for either question.

Table 61 250+ Employees Outlook/General Business Activity, Previous Six Months


Table 62 250+ Employees Outlook/General Business Activity, Next Six Months


A similar trend occurred on the more specific company indicator level, though reductions in the proportion of those expecting increases also occurred.

Revenues climbed for 57 percent of large business in the past six months and profits did for 43 percent. However, almost 20 percent of businesses reported a decrease in profits where only 5 percent did with revenues. This suggests that some large companies in the region are struggling to turn revenues into profits. Similarly, while no firms projected decreases in revenue with 38

[^8]
percent expecting gains in the next six months, 10 percent expected such declines in profits and only 29 percent expected increases.

Hiring, an especially important metric with big businesses for the region's labor market, increased in 50 percent of large companies, though it decreased in another 15 percent in the last six months. Average hours worked increased moderately in 33 percent of business but significantly in another 14 percent, an indication of increased demand for labor. Projections for the next six months saw each employment metric stabilize, but also contained expected increases in both for roughly 30 percent of businesses.

Capital expenditures was increased by over half of businesses in the last six months, with 19 percent increasing them dramatically. In the upcoming six months, capital expenditures are likely to continue their upward trend with 14 percent of businesses increasing them significantly and another 26 percent increasing them to some degree. Capital expenditures from big businesses tend to have wide-ranging impacts on the rest of the regional economy, so such development could have positive long term consequences.

Table 63 250+ Employees Business Indicators, Previous Six Months


Table 64 250+ Employees Business Indicators, Next Six Months


When asked to identify the factors limiting the ability to increase business activity, demand (33 percent), competition within the sector ( 24 percent), cost of labor ( 24 percent) government policy (19 percent), and shortage of skilled labor (19 percent) were the most frequently cited options. These tracked with the result of the rest of the region, suggesting that large businesses are affected by the same general factors as all other businesses in the area.


## SPECIAL SECTION: THE AGING WORKFORCE

Respondents were also asked two questions related to this forum's theme of the regional population and demographics. The first of the questions asked them about what impact, if any, the increasing percentage of those 65 and older would have on their demand for skilled labor and level of productivity. The second question asked how the same thing might impact their level of business activity. The following paragraphs will include a brief overview of the results on a general level, a discussion of a possible reason for the direction of the results, and a more specific breakdown of each of the three questions that brings in the feelings of various industries and size groups.

The results indicate that the majority of businesses do not expect the aging population to influence the demand for skilled labor, level of productivity, or level of businesses activity. Businesses who do expect either of these factors to be affected often believe that the result will increase each factor. For instance, 53 percent of respondents didn't expect demand for skilled labor to be affected, while 39 percent expected it to increase as a result of the changing demographics. Approximately 60 percent of respondents thought productivity wouldn't be affected, but 25 percent thought it would increase. Finally, 60 percent thought business activity would remain unchanged, while 28 percent thought that it would rise.

Table 65 - Anticipated Impact of Aging Workforce on Labor and Productivity


Table 66 - Anticipated Impact of Aging Workforce on Business Activity


One theory that might explain why businesses are expecting productivity to increase despite the potential drop in employment caused by an aging population is that retirees will be replaced by younger, more skilled employees. However, this relies on the assumption that regional businesses will be able to attract and retain more skilled labor. A shortage of skilled labor has already been listed as one of the major limitations on increasing businesses activity. Such a shortage could become even more pronounced and problematic as the demand for it increases. It might be beneficial for local companies to focus on luring and retaining talent from the universities in the region.

## SIZE BREAKDOWN

## Demand for Skilled Labor

1-49: 1\% (significantly decrease), $6 \%$ (moderately decrease), $57 \%$ (no change), $30 \%$ (moderately increase), $5 \%$ (significantly increase)


50-249: 5\% (significantly decrease), 10\% (moderately decrease), $29 \%$ (no change), $38 \%$ (moderately increase), 19\% (significantly increase)

250+: 0\% (significantly decrease), 0\% (moderately decrease), 57\% (no change), 43\% (moderately increase), $0 \%$ (significantly increase)
*There appears to be a strong correlation between the size of a business and their demand for skilled labor.

## Productivity

1-49: 1\% (significantly decrease), 12\% (moderately decrease), 63\% (no change), 19\% (moderately increase), $5 \%$ (significantly increase)

50-249: 5\% (significantly decrease), 10\% (moderately decrease), 50\% (no change), 30\% (moderately increase), $5 \%$ (significantly increase)

250+: 0\% (significantly decrease), 19\% (moderately decrease), 62\% (no change), 19\% (moderately increase), $0 \%$ (significantly increase)
*Medium-sized businesses expect to see a greater increase in productivity than the other two size categories.

## Business Activity

1-49: 13\% (decrease), $59 \%$ (no change), 28\% (increase)
50-249: 14\% (decrease), 62\% (no change), 24\% (increase)
$250+0 \%$ (decrease), $65 \%$ (no change), $35 \%$ (increase)
*In general, the aging populating is expected to have no impact on the level of business activity. A small amount of businesses in the 1-49 and 50-249 categories are anticipating a decrease, while $0 \%$ of businesses in the 250+ category are expecting to see a decrease. In fact, $35 \%$ of big businesses are expecting an increase.

## Industry Breakdown

## Demand for Skilled Labor

Professional Services: 0\% (significantly decrease), 6\% (moderately decrease), 33\% (no change), $61 \%$ (moderately increase), $0 \%$ (significantly increase)

Health Services: 0\% (significantly decrease), 13\% (moderately decrease), 47\% (no change), $33 \%$ (moderately increase), $7 \%$ (significantly increase)

Financial Services: 7\% (significantly decrease), 7\% (moderately decrease), 71\% (no change), 14\% (moderately increase), 0\% (significantly increase)

Non-Profits: 0\% (significantly decrease), 0\% (moderately decrease), 46\% (no change), 46\% (moderately increase), 8\% (significantly increase)

Education: 0\% (significantly decrease), 20\% (moderately decrease), 40\% (no change), 40\% (moderately increase), 0\% (significantly increase)

Leisure and Hospitality: 0\% (significantly decrease), 0\% (moderately decrease), 70\% (no change), $30 \%$ (moderately increase), $0 \%$ (significantly increase)
*Professional services and non-profits are expected to be impacted the most negatively by the aging demographic. Health services and education will also be negatively impacted.

## Productivity

Professional Services: 0\% (significantly decrease), 22\% (moderately decrease), 67\% (no change), $6 \%$ (moderately increase), $6 \%$ (significantly increase)

Health Services: 0\% (significantly decrease), 36\% (moderately decrease), 36\% (no change), 29\% (moderately increase), 0\% (significantly increase)

Financial Services: 7\% (significantly decrease), $0 \%$ (moderately decrease), $71 \%$ (no change), $21 \%$ (moderately increase), $0 \%$ (significantly increase)

Non-Profits: 0\% (significantly decrease), $7 \%$ (moderately decrease), 50\% (no change), 43\% (moderately increase), 0\% (significantly increase)

Education: 0\% (significantly decrease), 20\% (moderately decrease), 60\% (no change), 20\% (moderately increase), 0\% (significantly increase)

Leisure and Hospitality: 0\% (significantly decrease), 10\% (moderately decrease), $70 \%$ (no change), 20\% (moderately increase), $0 \%$ (significantly increase)
*The health services industry reported mixed responses, while non-profits are expecting their productivity to moderately increase.

## Business Activity

Professional Services: 11\% (decrease), 78\% (no change), 11\% (increase)
Health Services: 7\% (decrease), 27\% (no change), 67\% (increase)
Financial Services: 31\% (decrease), 46\% (no change), 23\% (increase)
Non-Profits: 0\% (decrease), 57\% (no change), 43\% (increase)
Education: 10\% (decrease), 60\% (no change), 30\% (increase)
Leisure and Hospitality: 11\% (decrease), 44\% (no change), 44\% (increase)
*Not surprisingly, the health services industry expects their business activity to increase. So do non-profits and the leisure and hospitality sector.

## APPENDIX A: COMMUTING PATTERNS AND MIGRATION

Commuting to work is an important issue for the REIF region and workforce development. The following detailed commuting pattern analysis shows each county commuting pattern for the five-year period of 2007-2011. For each county, the table and accompanying flow diagram look at

- Employed in selected county but live outside of that area
- Live in selected county and employed outside of that area
- Employed and live in the selected county

The flow diagram compares the commuting patterns for 2007 and 2011. The results vary by county, but there are a number of key trends.

Examining the count of workers that are employed in the county but commute in from elsewhere, shows that 13 of the 15 counties have more workers commuting into the area in 2011 as compared to 2007. Only Burnett and Iron counties in Wisconsin had few workers commuting in.

The vast majority of the REIF counties had fewer workers who both live and work in their respective county in 2011 than in 2007. The counties of Carlton, Cook, Itasca, and Pine had an increase in this worker count.

Finally, virtually all of the counties showed an increase in the number of workers who live in in one county but commute to another for employment. Only Douglas and Washburn counties in Wisconsin had slight decreases in worker count.

## minnesota commuting patterns

Legend:

1,913 - Employed in Selection Area, Live Outside 4,247 - Live in Selection Area, Employed Outside 2,362 - Employed and Live in Selection Area

Source: US Department of Commerce, US Census Bureau, On The Map


| Aitkin County |  |  |
| :---: | :---: | :---: |
| 2011 | Count | Share |
| Employed in Selection Area | 4,275 | 100.0\% |
| Employed in Selection Area but Living Outside | 1,913 | 44.7\% |
| Employed and Living in Selection Area | 2,362 | 55.3\% |
| Living in Selection Area | 6,609 | 100.0\% |
| Living in Selection Area but Employed Outside | 4,247 | 64.3\% |
| Living and Employed in Selection Area | 2,362 | 35.7\% |
| 2010 | Count | Share |
| Employed in Selection Area | 4,274 | 100.0\% |
| Employed in Selection Area but Living Outside | 1,638 | 38.3\% |
| Employed and Living in Selection Area | 2,636 | 61.7\% |
| Living in Selection Area | 5,874 | 100.0\% |
| Living in Selection Area but Employed Outside | 3,238 | 55.1\% |
| Living and Employed in Selection Area | 2,636 | 44.9\% |
| 2009 | Count | Share |
| Employed in Selection Area | 4,333 | 100.0\% |
| Employed in Selection Area but Living Outside | 1,698 | 39.2\% |
| Employed and Living in Selection Area | 2,635 | 60.8\% |
| Living in Selection Area | 5,640 | 100.0\% |
| Living in Selection Area but Employed Outside | 3,005 | 53.3\% |
| Living and Employed in Selection Area | 2,635 | 46.7\% |
| 2008 | Count | Share |
| Employed in Selection Area | 4,527 | 100.0\% |
| Employed in Selection Area but Living Outside | 1,724 | 38.1\% |
| Employed and Living in Selection Area | 2,803 | 61.9\% |
| Living in Selection Area | 5,925 | 100.0\% |
| Living in Selection Area but Employed Outside | 3,122 | 52.7\% |
| Living and Employed in Selection Area | 2,803 | 47.3\% |
| 2007 | Count | Share |
| Employed in Selection Area | 4,391 | 100.0\% |
| Employed in Selection Area but Living Outside | 1,506 | 34.3\% |
| Employed and Living in Selection Area | 2,885 | 65.7\% |
| Living in Selection Area | 6,194 | 100.0\% |
| Living in Selection Area but Employed Outside | 3,309 | 53.4\% |
| Living and Employed in Selection Area | 2,885 | 46.6\% |

Aitkin 2007


Aitkin 2011


## National Bank of Commerce

| Carlton County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 13,505 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,855 | $43.4 \%$ |
| Employed and Living in Selection Area | 7,650 | $56.6 \%$ |
| Living in Selection Area | 16,651 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 9,001 | $54.1 \%$ |
| Living and Employed in Selection Area | 7,650 | $45.9 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 13,013 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,104 | $39.2 \%$ |
| Employed and Living in Selection Area | 7,909 | $60.8 \%$ |
| Living in Selection Area | 15,743 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 7,834 | $49.8 \%$ |
| Living and Employed in Selection Area | 7,909 | $50.2 \%$ |
| 2009 | Count | Share |
| Employed in Selection Area | 12,855 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 4,863 | $37.8 \%$ |
| Employed and Living in Selection Area | 7,992 | $62.2 \%$ |
| Living in Selection Area | 15,355 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 7,363 | $48.0 \%$ |
| Living and Employed in Selection Area | 7,992 | $52.0 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 10,935 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 4,246 | $38.8 \%$ |
| Employed and Living in Selection Area | 6,689 | $61.2 \%$ |
| Living in Selection Area | 14,343 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 7,654 | $53.4 \%$ |
| Living and Employed in Selection Area | 6,689 | $46.6 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 12,381 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,302 | $42.8 \%$ |
| Employed and Living in Selection Area | 7,079 | $57.2 \%$ |
| Living in Selection Area | 12,992 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,913 | $45.5 \%$ |
| Living and Employed in Selection Area | 7,079 | $54.5 \%$ |
|  |  |  |



Carlton 2011


| Cook County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 2,471 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 569 | $23.0 \%$ |
| Employed and Living in Selection Area | 1,902 | $77.0 \%$ |
| Living in Selection Area | 2,402 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 500 | $20.8 \%$ |
| Living and Employed in Selection Area | 1,902 | $79.2 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 2,414 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 343 | $14.2 \%$ |
| Employed and Living in Selection Area | 2,071 | $85.8 \%$ |
| Living in Selection Area | 2,530 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 459 | $18.1 \%$ |
| Living and Employed in Selection Area | 2,071 | $81.9 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 2,070 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 263 | $12.7 \%$ |
| Employed and Living in Selection Area | 1,807 | $87.3 \%$ |
| Living in Selection Area | 2,212 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 405 | $18.3 \%$ |
| Living and Employed in Selection Area | 1,807 | $81.7 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 2,253 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 513 | $22.8 \%$ |
| Employed and Living in Selection Area | 1,740 | $77.2 \%$ |
| Living in Selection Area | 2,091 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 351 | $16.8 \%$ |
| Living and Employed in Selection Area | 1,740 | $83.2 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 2,264 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 511 | $22.6 \%$ |
| Employed and Living in Selection Area | 1,753 | $77.4 \%$ |
| Living in Selection Area | 2,041 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 288 | $14.1 \%$ |
| Living and Employed in Selection Area | 1,753 | $85.9 \%$ |

Cook 2007


Cook 2011


| Itasca County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 16,407 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 4,273 | $26.0 \%$ |
| Employed and Living in Selection Area | 12,134 | $74.0 \%$ |
| Living in Selection Area | 20,107 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 7,973 | $39.7 \%$ |
| Living and Employed in Selection Area | 12,134 | $60.3 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 15,364 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 3,127 | $20.4 \%$ |
| Employed and Living in Selection Area | 12,237 | $79.6 \%$ |
| Living in Selection Area | 18,237 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 6,000 | $32.9 \%$ |
| Living and Employed in Selection Area | 12,237 | $67.1 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 15,085 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 3,210 | $21.3 \%$ |
| Employed and Living in Selection Area | 11,875 | $78.7 \%$ |
| Living in Selection Area | 17,610 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,735 | $32.6 \%$ |
| Living and Employed in Selection Area | 11,875 | $67.4 \%$ |
| $\mathbf{2 0 0 8}$ | Count | Share |
| Employed in Selection Area | 15,267 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 3,326 | $21.8 \%$ |
| Employed and Living in Selection Area | 11,941 | $78.2 \%$ |
| Living in Selection Area | 17,588 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,647 | $32.1 \%$ |
| Living and Employed in Selection Area | 11,941 | $67.9 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 15,030 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 4,023 | $26.8 \%$ |
| Employed and Living in Selection Area | 11,007 | $73.2 \%$ |
| Living in Selection Area | 15,065 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,058 | $26.9 \%$ |
| Living and Employed in Selection Area | 11,007 | $73.1 \%$ |
|  |  |  |

Itasca 2007


Itasca 2011


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| Koochiching County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 5,540 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,244 | $22.5 \%$ |
| Employed and Living in Selection Area | 4,296 | $77.5 \%$ |
| Living in Selection Area | 6,466 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,170 | $33.6 \%$ |
| Living and Employed in Selection Area | 4,296 | $66.4 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 5,203 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 714 | $13.7 \%$ |
| Employed and Living in Selection Area | 4,489 | $86.3 \%$ |
| Living in Selection Area | 5,971 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,482 | $24.8 \%$ |
| Living and Employed in Selection Area | 4,489 | $75.2 \%$ |
| 2009 | Count | Share |
| Employed in Selection Area | 4,564 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 475 | $10.4 \%$ |
| Employed and Living in Selection Area | 4,089 | $89.6 \%$ |
| Living in Selection Area | 5,446 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,357 | $24.9 \%$ |
| Living and Employed in Selection Area | 4,089 | $75.1 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 4,660 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 503 | $10.8 \%$ |
| Employed and Living in Selection Area | 4,175 | $89.2 \%$ |
| Living in Selection Area | 5,563 | $100.0 \%$ |
| Employed in Selection Area but Employed Outside | 1,406 | $25.3 \%$ |
| Living and Employed in Selection Area | 4,175 | $74.7 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 4,828 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 477 | $990.0 \%$ |
| Employed and Living in Selection Area | 4,351 | $90.1 \%$ |
| Living in Selection Area | 5,451 | $100.0 \%$ |
| Employed in Selection Area but Employed Outside | 1,100 | $20.2 \%$ |
| Living and Employed in Selection Area | 4,351 | $79.8 \%$ |
|  |  |  |

Koochiching 2007


Koochiching 2011


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Lake County

| $\mathbf{2 0 1 1}$ | Count | Share |
| :--- | :--- | :--- |
| Employed in Selection Area | 4,446 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,602 | $36.0 \%$ |
| Employed and Living in Selection Area | 2,844 | $64.0 \%$ |
| Living in Selection Area | 5,096 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,252 | $44.2 \%$ |
| Living and Employed in Selection Area | 2,844 | $55.8 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 4,247 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,308 | $30.8 \%$ |
| Employed and Living in Selection Area | 2,939 | $69.2 \%$ |
| Living in Selection Area | 5,095 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,156 | $42.3 \%$ |
| Living and Employed in Selection Area | 2,939 | $57.7 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 4,161 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,381 | $33.2 \%$ |
| Employed and Living in Selection Area | 2,780 | $66.8 \%$ |
| Living in Selection Area | 4,752 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,972 | $41.5 \%$ |
| Living and Employed in Selection Area | 2,780 | $58.5 \%$ |
| $\mathbf{2 0 0 8}$ | $\mathbf{C o u n t}$ | Share |
| Employed in Selection Area | 4,789 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,433 | $38.5 \%$ |
| Employed and Living in Selection Area | 2,800 | $66.1 \%$ |
| Living in Selection Area | 4,819 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,019 | $41.9 \%$ |
| Living and Employed in Selection Area | 2,800 | $58.1 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 4,342 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,398 | $32.2 \%$ |
| Employed and Living in Selection Area | 2,944 | $67.8 \%$ |
| Living in Selection Area |  |  |
| Living in Selection Area but Employed Outside | Employed in Selection Area | $100.0 \%$ |

Lake 2007


Lake 2011



| Pine County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 7,942 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,875 | $36.2 \%$ |
| Employed and Living in Selection Area | 5,067 | $63.8 \%$ |
| Living in Selection Area | 11,954 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 6,887 | $57.6 \%$ |
| Living and Employed in Selection Area | 5,067 | $42.4 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 7,822 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,680 | $34.3 \%$ |
| Employed and Living in Selection Area | 5,142 | $65.7 \%$ |
| Living in Selection Area | 10,977 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,835 | $53.2 \%$ |
| Living and Employed in Selection Area | 5,142 | $46.8 \%$ |
| 2009 | Count | Share |
| Employed in Selection Area | 7,460 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,277 | $30.5 \%$ |
| Employed and Living in Selection Area | 5,183 | $69.5 \%$ |
| Living in Selection Area | 10,583 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,400 | $51.0 \%$ |
| Living and Employed in Selection Area | 5,183 | $49.0 \%$ |
| $\mathbf{2 0 0 8}$ | Count | Share |
| Employed in Selection Area | 6,978 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,116 | $30.3 \%$ |
| Employed and Living in Selection Area | 4,862 | $69.7 \%$ |
| Living in Selection Area | 10,476 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 5,614 | $53.6 \%$ |
| Living and Employed in Selection Area | 5,862 | $46.4 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 6,491 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,338 | $36.0 \%$ |
| Employed and Living in Selection Area | 4,153 | $64.0 \%$ |
| Living in Selection Area | 9,117 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,964 | $54.4 \%$ |
| Living and Employed in Selection Area | 4,153 | $45.6 \%$ |
|  |  |  |

Pine 2007


Pine 2011


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## St. Louis County

| $\mathbf{2 0 1 1}$ | Count | Share |
| :--- | :--- | :--- |
| Employed in Selection Area | 98,776 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 31,794 | $32.2 \%$ |
| Employed and Living in Selection Area | 66,982 | $67.8 \%$ |
| Living in Selection Area | 86,534 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 19,552 | $22.6 \%$ |
| Living and Employed in Selection Area | 66,982 | $77.4 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 95,652 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 29,477 | $30.8 \%$ |
| Employed and Living in Selection Area | 66,175 | $69.2 \%$ |
| Living in Selection Area | 85,504 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 19,329 | $22.6 \%$ |
| Living and Employed in Selection Area | 66,175 | $77.4 \%$ |
| 2009 | Count | Share |
| Employed in Selection Area | 94,240 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 28,713 | $30.5 \%$ |
| Employed and Living in Selection Area | 65,527 | $69.5 \%$ |
| Living in Selection Area | 84,322 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 18,795 | $22.3 \%$ |
| Living and Employed in Selection Area | 65,527 | $77.7 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 95,961 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 27,424 | $28.6 \%$ |
| Employed and Living in Selection Area | 68,537 | $71.4 \%$ |
| Living in Selection Area | 87,422 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 18,885 | $21.6 \%$ |
| Living and Employed in Selection Area | 68,537 | $78.4 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 94,494 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 24,312 | $25.7 \%$ |
| Employed and Living in Selection Area | 70,182 | $74.3 \%$ |
| Living in Selection Area | 89,428 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 19,246 | $21.5 \%$ |
| Living and Employed in Selection Area | 70,182 | $75.8 \%$ |
|  |  |  |

St. Louis 2007


St. Louis 2011


## National Bank of Commerce

Legend:

|  |
| :--- |
| 1,913 - Employed in Selection Area, Live Outside |
| 4,247 - Live in Selection Area, Employed Outside |
| 2,362 - Employed and Live in Selection Area |

Source: US Department of Commerce, US Census Bureau, On The Map
Ashland County

| 2011 | Count | Share |
| :---: | :---: | :---: |
| Employed in Selection Area | 8,069 | 100.0\% |
| Employed in Selection Area but Living Outside | 3,915 | 48.5\% |
| Employed and Living in Selection Area | 4,154 | 51.5\% |
| Living in Selection Area | 8,321 | 100.0\% |
| Living in Selection Area but Employed Outside | 4,167 | 50.1\% |
| Living and Employed in Selection Area | 4,154 | 49.9\% |
| 2010 | Count | Share |
| Employed in Selection Area | 8,087 | 100.0\% |
| Employed in Selection Area but Living Outside | 3,647 | 45.1\% |
| Employed and Living in Selection Area | 4,440 | 54.9\% |
| Living in Selection Area | 7,315 | 100.0\% |
| Living in Selection Area but Employed Outside | 2,875 | 39.3\% |
| Living and Employed in Selection Area | 4,440 | 60.7\% |
| 2009 | Count | Share |
| Employed in Selection Area | 7,591 | 100.0\% |
| Employed in Selection Area but Living Outside | 3,523 | 46.4\% |
| Employed and Living in Selection Area | 4,068 | 53.6\% |
| Living in Selection Area | 6,590 | 100.0\% |
| Living in Selection Area but Employed Outside | 2,522 | 38.3\% |
| Living and Employed in Selection Area | 4,068 | 61.7\% |
| 2008 | Count | Share |
| Employed in Selection Area | 8,243 | 100.0\% |
| Employed in Selection Area but Living Outside | 3,337 | 40.5\% |
| Employed and Living in Selection Area | 4,906 | 59.5\% |
| Living in Selection Area | 7,266 | 100.0\% |
| Living in Selection Area but Employed Outside | 2,360 | 32.5\% |



| Living and Employed in Selection Area | 4,906 | $67.5 \%$ |
| :---: | :---: | :---: |
| 2007 | Count | Share |
| Employed in Selection Area | 8,514 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 3,699 | $43.4 \%$ |
| Employed and Living in Selection Area | 4,815 | $56.6 \%$ |
| Living in Selection Area | 7,046 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,231 | $31.7 \%$ |
| Living and Employed in Selection Area | 4,815 | $68.3 \%$ |

Ashland 2007


Ashland 2011


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| Bayfield County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 3,392 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,094 | $32.3 \%$ |
| Employed and Living in Selection Area | 2,298 | $67.7 \%$ |
| Living in Selection Area | 8,438 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 6,140 | $72.8 \%$ |
| Living and Employed in Selection Area | 2,298 | $27.2 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 3,403 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 935 | $27.5 \%$ |
| Employed and Living in Selection Area | 2,468 | $72.5 \%$ |
| Living in Selection Area | 6,308 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,840 | $60.9 \%$ |
| Living and Employed in Selection Area | 2,468 | $39.1 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 3,198 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 823 | $25.7 \%$ |
| Employed and Living in Selection Area | 2,375 | $74.3 \%$ |
| Living in Selection Area | 5,939 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,564 | $60.0 \%$ |
| Living and Employed in Selection Area | 2,375 | $40.0 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 3,262 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 877 | $26.9 \%$ |
| Employed and Living in Selection Area | 2,385 | $73.1 \%$ |
| Living in Selection Area | 5,925 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,540 | $59.7 \%$ |
| Living and Employed in Selection Area | 2,385 | $40.3 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 3,319 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 901 | $27.1 \%$ |
| Employed and Living in Selection Area | 2,418 | $72.9 \%$ |
| Living in Selection Area | 6,103 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,685 | $60.4 \%$ |
| Living and Employed in Selection Area | 2,418 | $39.6 \%$ |
|  |  |  |

Bayfield 2007


Bayfield 2011


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Burnett County

| $\mathbf{2 0 1 1}$ | Count | Share |
| :--- | :--- | :--- |
| Employed in Selection Area | 4,810 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,109 | $43.8 \%$ |
| Employed and Living in Selection Area | 2,701 | $56.2 \%$ |
| Living in Selection Area | 6,838 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,137 | $60.5 \%$ |
| Living and Employed in Selection Area | 2,701 | $39.5 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 4,632 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,726 | $37.3 \%$ |
| Employed and Living in Selection Area | 2,906 | $62.7 \%$ |
| Living in Selection Area | 6,053 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,147 | $52.0 \%$ |
| Living and Employed in Selection Area | 2,906 | $48.0 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 4,910 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,020 | $41.1 \%$ |
| Employed and Living in Selection Area | 2,890 | $58.9 \%$ |
| Living in Selection Area | 6,069 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,179 | $52.4 \%$ |
| Living and Employed in Selection Area | 2,890 | $47.6 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 5,228 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,075 | $39.7 \%$ |
| Employed and Living in Selection Area | 3,153 | $60.3 \%$ |
| Living in Selection Area | 6,243 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,090 | $49.5 \%$ |
| Living and Employed in Selection Area | 3,153 | $50.5 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 5,333 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,137 | $40.1 \%$ |
| Employed and Living in Selection Area | 3,196 | $59.9 \%$ |
| Living in Selection Area | 6,441 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,245 | $50.4 \%$ |
| Living and Employed in Selection Area | 3,196 | $49.6 \%$ |
|  |  |  |



Burnett 2007


Burnett 2011


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Douglas County

| $\mathbf{2 0 1 1}$ | Count | Share |
| :--- | :--- | :--- |
| Employed in Selection Area | 15,375 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 6,257 | $40.7 \%$ |
| Employed and Living in Selection Area | 9,118 | $59.3 \%$ |
| Living in Selection Area | 19,768 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 10,650 | $53.9 \%$ |
| Living and Employed in Selection Area | 9,118 | $46.1 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 15,221 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,972 | $39.2 \%$ |
| Employed and Living in Selection Area | 9,249 | $60.8 \%$ |
| Living in Selection Area | 20,057 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 10,808 | $53.9 \%$ |
| Living and Employed in Selection Area | 9,249 | $46.1 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 14,769 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,440 | $36.8 \%$ |
| Employed and Living in Selection Area | 9,329 | $63.2 \%$ |
| Living in Selection Area | 19,831 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 10,502 | $53.0 \%$ |
| Living and Employed in Selection Area | 9,329 | $47.0 \%$ |
| $\mathbf{2 0 0 8}$ | Count | Share |
| Employed in Selection Area | 15,497 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,521 | $35.6 \%$ |
| Employed and Living in Selection Area | 9,976 | $64.4 \%$ |
| Living in Selection Area | 20,372 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 10,396 | $51.0 \%$ |
| Living and Employed in Selection Area | 9,976 | $49.0 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 15,535 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 5,013 | $32.3 \%$ |
| Employed and Living in Selection Area | 10,522 | $67.7 \%$ |
| Living in Selection Area | 21,191 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 10,669 | $50.3 \%$ |
| Living and Employed in Selection Area | 10,522 | $49.7 \%$ |
|  |  |  |

Douglas 2007


Douglas 2011


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| Iron County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 1,682 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 857 | $51.0 \%$ |
| Employed and Living in Selection Area | 825 | $49.0 \%$ |
| Living in Selection Area | 2,351 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,526 | $64.9 \%$ |
| Living and Employed in Selection Area | 825 | $35.1 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 1,669 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 756 | $45.3 \%$ |
| Employed and Living in Selection Area | 913 | $54.7 \%$ |
| Living in Selection Area | 2,515 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,602 | $63.7 \%$ |
| Living and Employed in Selection Area | 913 | $36.3 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 1,661 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 805 | $48.5 \%$ |
| Employed and Living in Selection Area | 856 | $51.5 \%$ |
| Living in Selection Area | 2,396 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,540 | $64.3 \%$ |
| Living and Employed in Selection Area | 856 | $35.7 \%$ |
| 2008 | Count | Share |
| Employed in Selection Area | 1,960 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 999 | $51.0 \%$ |
| Employed and Living in Selection Area | 961 | $49.0 \%$ |
| Living in Selection Area | 2,515 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,554 | $61.8 \%$ |
| Living and Employed in Selection Area | 961 | $38.2 \%$ |
| 2007 | Count | Share |
| Employed in Selection Area | 1,997 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,118 | $56.0 \%$ |
| Employed and Living in Selection Area | 879 | $44.0 \%$ |
| Living in Selection Area | 2,310 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 1,431 | $61.9 \%$ |
| Living and Employed in Selection Area | 879 | $38.1 \%$ |
|  |  |  |



Iron 2007


Iron 2011


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## National Bank of Commerce



| Sawyer County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 6,410 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,458 | $38.3 \%$ |
| Employed and Living in Selection Area | 3,952 | $61.7 \%$ |
| Living in Selection Area | 6,447 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,495 | $38.7 \%$ |
| Living and Employed in Selection Area | 3,952 | $61.3 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 6,427 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,126 | $33.1 \%$ |
| Employed and Living in Selection Area | 4,301 | $66.9 \%$ |
| Living in Selection Area | 6,930 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,629 | $37.9 \%$ |
| Living and Employed in Selection Area | 4,301 | $62.1 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 6,278 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,913 | $30.5 \%$ |
| Employed and Living in Selection Area | 4,365 | $69.5 \%$ |
| Living in Selection Area | 6,853 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,488 | $36.3 \%$ |
| Living and Employed in Selection Area | 4,365 | $63.7 \%$ |
| $\mathbf{2 0 0 8}$ | Count | Share |
| Employed in Selection Area | 6,679 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,226 | $33.3 \%$ |
| Employed and Living in Selection Area | 4,453 | $66.7 \%$ |
| Living in Selection Area | 6,685 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,232 | $33.4 \%$ |
| Living and Employed in Selection Area | 4,453 | $66.6 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 6,750 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,166 | $32.1 \%$ |
| Employed and Living in Selection Area | 4,584 | $67.9 \%$ |
| Living in Selection Area | 6,986 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 2,402 | $34.4 \%$ |
| Living and Employed in Selection Area | 4,584 | $65.6 \%$ |
|  |  |  |

Sawyer 2007


Sawyer 2011


## National Bank of Commerce



| Washburn County |  |  |
| :--- | :--- | :--- |
| $\mathbf{2 0 1 1}$ | Count | Share |
| Employed in Selection Area | 5,559 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,724 | $49.0 \%$ |
| Employed and Living in Selection Area | 2,835 | $51.0 \%$ |
| Living in Selection Area | 6,241 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,406 | $54.6 \%$ |
| Living and Employed in Selection Area | 2,835 | $44.4 \%$ |
| $\mathbf{2 0 1 0}$ | Count | Share |
| Employed in Selection Area | 5,225 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 2,172 | $41.6 \%$ |
| Employed and Living in Selection Area | 3,053 | $58.6 \%$ |
| Living in Selection Area | 6,709 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 3,656 | $54.5 \%$ |
| Living and Employed in Selection Area | 3,053 | $45.5 \%$ |
| $\mathbf{2 0 0 9}$ | Count | Share |
| Employed in Selection Area | 4,668 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,897 | $40.5 \%$ |
| Employed and Living in Selection Area | 2,777 | $59.5 \%$ |
| Living in Selection Area | 6,779 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,002 | $59.0 \%$ |
| Living and Employed in Selection Area | 2,777 | $41.0 \%$ |
| $\mathbf{2 0 0 8}$ | Count | Share |
| Employed in Selection Area | 4,671 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,869 | $40.0 \%$ |
| Employed and Living in Selection Area | 2,802 | $60.0 \%$ |
| Living in Selection Area | 6,841 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,039 | $59.0 \%$ |
| Living and Employed in Selection Area | 2,802 | $41.0 \%$ |
| $\mathbf{2 0 0 7}$ | Count | Share |
| Employed in Selection Area | 4,782 | $100.0 \%$ |
| Employed in Selection Area but Living Outside | 1,864 | $39.0 \%$ |
| Employed and Living in Selection Area | 2,918 | $61.0 \%$ |
| Living in Selection Area | 7,121 | $100.0 \%$ |
| Living in Selection Area but Employed Outside | 4,203 | $59.0 \%$ |
| Living and Employed in Selection Area | 2,918 | $41.0 \%$ |
|  |  |  |

Washburn 2007


Washburn 2011


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## MIGRATION INFLOW AND OUTFLOW

The following four tables show the migration of Minnesota and Wisconsin as separate population inflow into the county and outflow from the counties.

The population estimates change for the inflow and outflow in Column 2. The flow analysis estimates nonmovers and movers. The nonmover category is broken into four subgroups/ columns. Over the 15 -county region, a few trends can be noted. Out of the total population, only between $10.2 \%$ to about $16.2 \%$ are estimated to have moved. Over half of the movers stayed in the same county. The majority of the counties show that one quarter to one third of the movers stay in their respective state.

Minnesota Inflows

| County | Population 1 <br> Year and Over Estimate | Nonmovers Estimate | Movers within United States <br> Estimate | Movers within Same County Estimate | Movers from Different County, Same State Estimate | Movers from Different State Estimate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin County | 16,230 | 14,739 | 1,475 | 864 | 573 | 38 |
| Carlton County | 34,573 | 30,450 | 4,006 | 2,114 | 1,605 | 287 |
| Cook County | 5,159 | 4,551 | 608 | 349 | 151 | 108 |
| Itasca County | 44,417 | 39,346 | 4,991 | 2,860 | 1,676 | 455 |
| Koochiching County | 13,333 | 11,891 | 1,273 | 800 | 330 | 143 |
| Lake County | 10,691 | 9,660 | 1,025 | 636 | 312 | 77 |
| Pine County | 29,161 | 25,456 | 3,608 | 2,072 | 1,032 | 504 |
| St. Louis County | 197,395 | 163,872 | 32,781 | 21,420 | 7,532 | 3,829 |
| Source: US Department of Commerce, Census Bureau |  |  |  |  |  |  |

Minnesota Outflows

| County | Population 1 Year and Over Estimate | Nonmovers Estimate | Movers within United States Estimate | Movers within Same County Estimate | Movers from Different County, Same State Estimate | Movers from Different State Estimate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aitkin County | 16,493 | 14,739 | 1,754 | 864 | 779 | 111 |
| Carlton County | 34,861 | 30,450 | 4,411 | 2,114 | 1,518 | 779 |
| Cook County | 5,157 | 4,551 | 606 | 349 | 192 | 65 |
| Itasca County | 44,028 | 39,346 | 4,682 | 2,860 | 1,180 | 642 |
| Koochiching County | 13,277 | 11,891 | 1,386 | 800 | 367 | 219 |
| Lake County | 11,057 | 9,660 | 1,397 | 636 | 513 | 248 |
| Pine County | 29,304 | 25,456 | 3,848 | 2,072 | 1,290 | 486 |
| St. Louis County | 195,446 | 163,872 | 31,574 | 21,420 | 5,421 | 4,733 |

Source: US Department of Commerce, Census Bureau

Wisconsin Inflows

| County | Population 1 <br> Year and Over <br> Estimate | Nonmovers Estimate | Movers within United States Estimate | Movers within Same County Estimate | Movers from Different County, Same State Estimate | Movers from Different State Estimate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ashland County | 16,004 | 13,990 | 2,006 | 1,153 | 377 | 476 |
| Bayfield County | 15,010 | 13,602 | 1,402 | 606 | 627 | 169 |
| Burnett County | 15,617 | 14,091 | 1,506 | 890 | 265 | 351 |
| Douglas County | 43,435 | 36,856 | 6,547 | 3,526 | 1,218 | 1,803 |
| Iron County | 6,056 | 5,450 | 589 | 209 | 118 | 262 |
| Sawyer County | 16,440 | 14,420 | 1,993 | 1,343 | 419 | 231 |
| Washburn County | 15,832 | 14,172 | 1,655 | 888 | 579 | 188 |
| Source: US Department of Commerce, Census Bureau |  |  |  |  |  |  |

## Wisconsin Outflows

| County | Population 1 <br> Year and Over <br> Estimate | Nonmovers Estimate | Movers within United States Estimate | Movers within Same County Estimate | Movers from Different County, Same State Estimate | Movers from Different State Estimate |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ashland County | 15,911 | 13,990 | 1,921 | 1,153 | 435 | 333 |
| Bayfield County | 15,177 | 13,602 | 1,575 | 606 | 489 | 480 |
| Burnett County | 15,859 | 14,091 | 1,768 | 890 | 556 | 322 |
| Douglas County | 42,467 | 36,856 | 5,611 | 3,526 | 771 | 1,314 |
| Iron County | 6,251 | 5,450 | 801 | 209 | 289 | 303 |
| Sawyer County | 16,792 | 14,420 | 2,372 | 1,343 | 839 | 190 |
| Washburn County | 16,419 | 14,172 | 2,247 | 888 | 946 | 413 |
| Source: US Department of Commerce, Census Bureau |  |  |  |  |  |  |

APPENDIX B: MINNESOTA LONG-TERM PROJECTIONS

| NAICS Code | Title | Estimate Year | Estimate <br> Year <br> Employment | Projected Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | Total, All Industries | 2010 | 155501 | 2020 | 175851 | 13.1 | 20350 |
|  | Self-Employed and |  |  |  |  |  |  |
| 67 | Unpaid Family Workers | 2010 | 11286 | 2020 | 13519 | 19.8 | 2233 |
| 101 | Goods-Producing Domain | 2010 | 19195 | 2020 | 22201 | 15.7 | 3006 |
|  | Natural Resources and |  |  |  |  |  |  |
| 1011 | Mining | 2010 | 5583 | 2020 | 6110 | 9.4 | 527 |


| NAICS Code | Title | Estimate Year | Estimate Year Employment | Projected Year | Projected Year Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1012 | Construction | 2010 | 5309 | 2020 | 7081 | 33.4 | 1772 |
| 1013 | Manufacturing | 2010 | 8303 | 2020 | 9010 | 8.5 | 707 |
| 102 | Service-Providing Domain Trade, Transportation and | 2010 | 125020 | 2020 | 140131 | 12.1 | 15111 |
| 1021 | Utilities | 2010 | 25354 | 2020 | 26957 | 6.3 | 1603 |
| 1022 | Information | 2010 | 1949 | 2020 | 2044 | 4.9 | 95 |
| 1023 | Financial Activities <br> Professional and | 2010 | 6033 | 2020 | 6370 | 5.6 | 337 |
| 1024 | Business Services Education and Health | 2010 | 8534 | 2020 | 10496 | 23 | 1962 |
| 1025 | Services | 2010 | 31656 | 2020 | 41625 | 31.5 | 9969 |
| 1026 | Leisure and Hospitality | 2010 | 17599 | 2020 | 18830 | 7 | 1231 |
| 1027 | Other Services | 2010 | 6262 | 2020 | 6634 | 5.9 | 372 |
| 1028 | Public Administration Agriculture, Forestry, | 2010 | 27633 | 2020 | 27175 | -1.7 | -458 |
| 11 | Fishing \& Hunting | 2010 | 1744 | 2020 | 1794 | 2.9 | 50 |
| 111 | Crop Production Animal Production and | 2010 | 125 | 2020 | 180 | 44 | 55 |
| 112 | Aquaculture | 2010 | 32 | 2020 | 27 | -15.6 | -5 |
| 113 | Forestry and Logging | 2010 | 1346 | 2020 | 1337 | -0.7 | -9 |
| 1133 | Logging Fishing, Hunting and | 2010 | 1001 | 2020 | 1010 | 0.9 | 9 |
| 114 | Trapping Agriculture \& Forestry | 2010 | 218 | 2020 | 230 | 5.5 | 12 |
| 115 | Support Activity | 2010 | 23 | 2020 | 20 | -13 | -3 |
| 21 | Mining | 2010 | 3839 | 2020 | 4316 | 12.4 | 477 |
| 2122 | Metal Ore Mining | 2010 | 3724 | 2020 | 4200 | 12.8 | 476 |
| 22 | Utilities <br> Power Generation and | 2010 | 1511 | 2020 | 1456 | -3.6 | -55 |
| 2211 | Supply | 2010 | 1458 | 2020 | 1400 | -4 | -58 |
| 23 | Construction | 2010 | 5309 | 2020 | 7081 | 33.4 | 1772 |
| 236 | Construction of Buildings Residential Building | 2010 | 1290 | 2020 | 1650 | 27.9 | 360 |
| 2361 | Construction Nonresidential Building | 2010 | 640 | 2020 | 800 | 25 | 160 |
| 2362 | Construction <br> Heavy and Civil | 2010 | 650 | 2020 | 850 | 30.8 | 200 |
| 237 | Engineering Construction Utility System | 2010 | 740 | 2020 | 971 | 31.2 | 231 |
| 2371 | Construction Highway, Street, and | 2010 | 270 | 2020 | 380 | 40.7 | 110 |
| 2373 | Bridge Construction | 2010 | 373 | 2020 | 500 | 34 | 127 |




| NAICS Code | Title | Estimate Year | Estimate Year <br> Employment | Projected Year | Projected Year Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4234 | Commercial Goods | 2010 | 102 | 2020 | 60 | -41.2 | -42 |
|  | Merchant Wholesalers |  |  |  |  |  |  |
|  | Metal and Mineral |  |  |  |  |  |  |
| 4235 | Merchant Wholesalers | 2010 | 35 | 2020 | 46 | 31.4 | 11 |
|  | Electric Goods Merchant |  |  |  |  |  |  |
| 4236 | Wholesalers | 2010 | 113 | 2020 | 103 | -8.8 | -10 |
|  | Hardware \& Plumbing |  |  |  |  |  |  |
| 4237 | Merchant Wholesalers | 2010 | 101 | 2020 | 152 | 50.5 | 51 |
|  | Machinery \& Supply |  |  |  |  |  |  |
| 4238 | Merchant Wholesalers | 2010 | 779 | 2020 | 714 | -8.3 | -65 |
|  | Misc Durable Goods |  |  |  |  |  |  |
| 4239 | Merchant Wholesalers | 2010 | 155 | 2020 | 227 | 46.5 | 72 |
|  | Merchant Wholesalers, |  |  |  |  |  |  |
| 424 | Nondurable Goods | 2010 | 1206 | 2020 | 1269 | 5.2 | 63 |
|  | Paper/Paper Product |  |  |  |  |  |  |
| 4241 | Merchant Wholesalers | 2010 | 108 | 2020 | 120 | 11.1 | 12 |
|  | Apparel/Piece Goods |  |  |  |  |  |  |
| 4243 | Merchant Wholesalers | 2010 | 21 | 2020 | 15 | -28.6 | -6 |
|  | Grocery Product |  |  |  |  |  |  |
| 4244 | Merchant Wholesalers | 2010 | 611 | 2020 | 650 | 6.4 | 39 |
|  | Petroleum Merchant |  |  |  |  |  |  |
| 4247 | Wholesalers | 2010 | 192 | 2020 | 168 | -12.5 | -24 |
|  | Alcoholic Beverage |  |  |  |  |  |  |
| 4248 | Merchant Wholesalers | 2010 | 116 | 2020 | 137 | 18.1 | 21 |
|  | Misc Nondurable Goods |  |  |  |  |  |  |
| 4249 | Merchant Whsle | 2010 | 90 | 2020 | 100 | 11.1 | 10 |
|  | Electronic Markets and |  |  |  |  |  |  |
| 425 | Agents/Brokers | 2010 | 326 | 2020 | 348 | 6.7 | 22 |
| 44 | Retail Trade | 2010 | 17337 | 2020 | 18782 | 8.3 | 1445 |
|  | Motor Vehicle and Parts |  |  |  |  |  |  |
| 441 | Dealers | 2010 | 1807 | 2020 | 1983 | 9.7 | 176 |
|  | Other Motor Vehicle |  |  |  |  |  |  |
| 4412 | Dealers | 2010 | 245 | 2020 | 281 | 14.7 | 36 |
|  | Auto Parts, Accessories, | 2010 | 550 | 2020 | 607 |  |  |
| 4413 | and Tire Stores |  |  |  |  | 10.4 | 57 |
|  | Furniture and Home |  |  |  |  |  |  |
| 442 | Furnishings Stores | 2010 | 346 | 2020 | 425 | 22.8 | 79 |
| 4422 | Home Furnishings Stores | 2010 | 159 | 2020 | 185 | 16.4 | 26 |
|  | Electronics and Appliance |  |  |  |  |  |  |
| 443 | Stores | 2010 | 508 | 2020 | 516 | 1.6 | 8 |
|  | Building Material \& |  |  |  |  |  |  |
| 444 | Garden Supply Stores | 2010 | 1538 | 2020 | 1798 | 16.9 | 260 |
|  | Building Material and |  |  |  |  |  |  |
| 4441 | Supplies Dealers | 2010 | 1455 | 2020 | 1700 | 16.8 | 245 |
|  | Food and Beverage |  |  |  |  |  |  |
| 445 | Stores | 2010 | 3168 | 2020 | 3181 |  |  |



| NAICS Code | Title | Estimate <br> Year | Estimate <br> Year <br> Employment | Projected Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4451 | Grocery Stores | 2010 | 2615 | 2020 | 2580 | -1.3 | -35 |
| 4452 | Specialty Food Stores Beer, Wine, and Liquor | 2010 | 159 | 2020 | 140 | -11.9 | -19 |
| 4453 | Stores Health and Personal Care | 2010 | 394 | 2020 | 461 | 17 | 67 |
| 446 | Stores | 2010 | 952 | 2020 | 1107 | 16.3 | 155 |
| 447 | Gasoline Stations Clothing and Clothing | 2010 | 2063 | 2020 | 1992 | -3.4 | -71 |
| 448 | Accessories Stores | 2010 | 1236 | 2020 | 1399 | 13.2 | 163 |
| 4481 | Clothing Stores | 2010 | 935 | 2020 | 1060 | 13.4 | 125 |
| 4482 | Shoe Stores Jewelry, Luggage \& | 2010 | 161 | 2020 | 182 | 13 | 21 |
| 4483 | Leather Goods Stores <br> Sporting <br> Goods/Hobby/Book/Music | 2010 | 140 | 2020 | 157 | 12.1 | 17 |
| 451 | Stores <br> Sporting Goods/Musical | 2010 | 663 | 2020 | 694 | 4.7 | 31 |
| 4511 | Instrument Stores Book, Periodical, and | 2010 | 541 | 2020 | 650 | 20.1 | 109 |
| 4512 | Music Stores General Merchandise | 2010 | 122 | 2020 | 44 | -63.9 | -78 |
| 452 | Stores | 2010 | 3689 | 2020 | 4350 | 17.9 | 661 |
| 4521 | Department Stores Other General | 2010 | 2257 | 2020 | 2000 | -11.4 | -257 |
| 4529 | Merchandise Stores Miscellaneous Store | 2010 | 1432 | 2020 | 2350 | 64.1 | 918 |
| 453 | Retailers | 2010 | 853 | 2020 | 786 | -7.9 | -67 |
| 4531 | Florists <br> Office Supply, Stationery | 2010 | 157 | 2020 | 109 | -30.6 | -48 |
| 4532 | \& Gift Stores | 2010 | 416 | 2020 | 381 | -8.4 | -35 |
| 4533 | Used Merchandise Stores Other Miscellaneous | 2010 | 57 | 2020 | 60 | 5.3 | 3 |
| 4539 | Store Retailers | 2010 | 223 | 2020 | 236 | 5.8 | 13 |
| 454 | Nonstore Retailers Electronic Shopping \& | 2010 | 514 | 2020 | 551 | 7.2 | 37 |
| 4541 | Mail-Order Houses Vending Machine | 2010 | 43 | 2020 | 42 | -2.3 | -1 |
| 4542 | Operators Direct Selling | 2010 | 34 | 2020 | 37 | 8.8 | 3 |
| 4543 | Establishments Transportation and | 2010 | 437 | 2020 | 472 | 8 | 35 |
| 48 | Warehousing | 2010 | 3297 | 2020 | 3524 | 6.9 | 227 |
| 483 | Water Transportation | 2010 | 194 | 2020 | 179 | -7.7 | -15 |


| NAICS Code | Title | Estimate Year | Estimate <br> Year <br> Employment | Projected Year | Projected Year Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 484 | Truck Transportation | 2010 | 648 | 2020 | 785 | 21.1 | 137 |
| 4841 | General Freight Trucking Specialized Freight | 2010 | 478 | 2020 | 585 | 22.4 | 107 |
| 4842 | Trucking <br> Transit and Ground | 2010 | 170 | 2020 | 200 | 17.6 | 30 |
| 485 | Passenger Transport <br> Taxi and Limousine | 2010 | 593 | 2020 | 629 | 6.1 | 36 |
| 4853 | Service <br> Other Ground Passenger | 2010 | 30 | 2020 | 26 | -13.3 | -4 |
| 4859 | Transportation Support Activities for | 2010 | 71 | 2020 | 72 | 1.4 | 1 |
| 488 | Transportation Support Activities for Air | 2010 | 153 | 2020 | 157 | 2.6 | 4 |
| 4881 | Transport <br> Support Activities, Road | 2010 | 53 | 2020 | 54 | 1.9 | 1 |
| 4884 | Transportation Freight Transportation | 2010 | 27 | 2020 | 39 | 44.4 | 12 |
| 4885 | Arrangement | 2010 | 32 | 2020 | 25 | -21.9 | -7 |
| 4911 | Postal Service | 2010 | 703 | 2020 | 560 | -20.3 | -143 |
| 492 | Couriers and Messengers | 2010 | 326 | 2020 | 475 | 45.7 | 149 |
| 4921 | Couriers <br> Warehousing and | 2010 | 314 | 2020 | 449 | 43 | 135 |
| 493 | Storage | 2010 | 52 | 2020 | 68 | 30.8 | 16 |
| 51 | Information | 2010 | 1949 | 2020 | 2044 | 4.9 | 95 |
| 511 | Publishing Industries <br> Motion Picture \& Sound | 2010 | 668 | 2020 | 598 | -10.5 | -70 |
| 512 | Recording Ind Broadcasting (except | 2010 | 133 | 2020 | 111 | -16.5 | -22 |
| 515 | Internet) Radio and Television | 2010 | 477 | 2020 | 507 | 6.3 | 30 |
| 5151 | Broadcasting Cable and Other Subscription | 2010 | 420 | 2020 | 440 | 4.8 | 20 |
| 5152 | Programming | 2010 | 57 | 2020 | 67 | 17.5 | 10 |
| 517 | Telecommunications Wired Telecommunications | 2010 | 539 | 2020 | 677 | 25.6 | 138 |
| 5171 | Carriers <br> Wireless <br> Telecommunications | 2010 | 302 | 2020 | 307 | 1.7 | 5 |
| 5172 | Carriers Other | 2010 | 213 | 2020 | 350 | 64.3 | 137 |
| 5179 | Telecommunications | 2010 | 24 | 2020 | 20 | -16.7 | -4 |
| 52 | Finance and Insurance | 2010 | 4823 | 2020 | 5017 | 4 | 194 |


| NAICS Code | Title | Estimate Year | Estimate <br> Year <br> Employment | Projected Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 522 | Credit Intermediation \& | 2010 | 2162 | 2020 | 2097 | -3 | -65 |
|  | Related Activity |  |  |  |  |  |  |
|  | Depository Credit |  |  |  |  |  |  |
| 5221 | Intermediation | 2010 | 2109 | 2020 | 2053 | -2.7 | -56 |
|  | Financial Investment \& |  |  |  |  |  |  |
| 523 | Related Activity | 2010 | 230 | 2020 | 259 | 12.6 | 29 |
|  | Security \& Commodity |  |  |  |  |  |  |
| 5231 | Investment Activity | 2010 | 175 | 2020 | 198 | 13.1 | 23 |
|  | Other Financial |  |  |  |  |  |  |
| 5239 | Investment Activities | 2010 | 55 | 2020 | 61 | 10.9 | 6 |
|  | Insurance Carriers \& |  |  |  |  |  |  |
| 524 | Related Activities | 2010 | 2413 | 2020 | 2637 | 9.3 | 224 |
| 5241 | Insurance Carriers | 2010 | 1833 | 2020 | 2007 | 9.5 | 174 |
|  | Insurance Agencies, |  |  |  |  |  |  |
| 5242 | Brokerages \& Support | 2010 | 580 | 2020 | 630 | 8.6 | 50 |
|  | Funds, Trusts \& Other |  |  |  |  |  |  |
| 525 | Financial Vehicles | 2010 | 14 | 2020 | 18 | 28.6 | 4 |
|  | Real Estate and Rental and Leasing | 2010 | 1210 | 2020 | 1353 | 11.8 | 143 |
| 531 | Real Estate | 2010 | 809 | 2020 | 906 | 12 | 97 |
| 5311 | Lessors of Real Estate | 2010 | 398 | 2020 | 400 | 0.5 | 2 |
|  | Offices of Real Estate |  |  |  |  |  |  |
| 5312 | Agents \& Brokers | 2010 | 142 | 2020 | 156 | 9.9 | 14 |
|  | Activities Related to Real |  |  |  |  |  |  |
| 5313 | Estate | 2010 | 269 | 2020 | 350 | 30.1 | 81 |
|  | Rental and Leasing |  |  |  |  |  |  |
| 532 | Services | 2010 | 401 | 2020 | 447 | 11.5 | 46 |
|  | Automotive Equipment |  |  |  |  |  |  |
| 5321 | Rental and Leasing | 2010 | 64 | 2020 | 66 | 3.1 | 2 |
| 5322 | Consumer Goods Rental | 2010 | 213 | 2020 | 230 | 8 | 17 |
| 5323 | General Rental Centers | 2010 | 59 | 2020 | 80 | 35.6 | 21 |
|  | Machinery \& Equipment |  |  |  |  |  |  |
| 5324 | Rental \& Leasing | 2010 | 65 | 2020 | 71 | 9.2 | 6 |
|  | Professional and |  |  |  |  |  |  |
| 54 | Technical Services | 2010 | 3794 | 2020 | 4521 | 19.2 | 727 |
| 5411 | Legal Services | 2010 | 626 | 2020 | 635 | 1.4 | 9 |
|  | Accounting and |  |  |  |  |  |  |
| 5412 | Bookkeeping Services | 2010 | 488 | 2020 | 525 | 7.6 | 37 |
|  | Architectural and |  |  |  |  |  |  |
| 5413 | Engineering Services | 2010 | 900 | 2020 | 1060 | 17.8 | 160 |
|  | Computer Systems |  |  |  |  |  |  |
| 5415 | Design and Rel Services | 2010 | 620 | 2020 | 830 | 33.9 | 210 |
|  | Management \& Technical |  |  |  |  |  |  |
| 5416 | Consulting Svc | 2010 | 260 | 2020 | 270 | 3.8 | 10 |


| NAICS Code | Title | Estimate <br> Year | Estimate <br> Year <br> Employment | Projected Year | Projected Year Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5418 | Advertising and RelatedServices | 2010 | 298 | 2020 | 351 | 17.8 | 53 |
|  |  |  |  |  |  |  |  |
|  | Other Professional \& |  |  |  |  |  |  |
| 5419 | Technical Services | 2010 | 481 | 2020 | 718 | 49.3 | 237 |
|  | Management of Companies and |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 55 | Enterprises | 2010 | 1011 | 2020 | 1200 | 18.7 | 189 |
|  | Administrative and Waste |  |  |  |  |  |  |
| 56 | Services | 2010 | 3729 | 2020 | 4775 | 28.1 | 1046 |
|  | Administrative and |  |  |  |  |  |  |
| 561 | Support Services | 2010 | 3308 | 2020 | 4253 | 28.6 | 945 |
|  | Office Administrative |  |  |  |  |  |  |
| 5611 | Services | 2010 | 81 | 2020 | 105 | 29.6 | 24 |
| 5613 | Employment Services | 2010 | 850 | 2020 | 1050 | 23.5 | 200 |
|  | Business Support |  |  |  |  |  |  |
| 5614 | Services | 2010 | 570 | 2020 | 700 | 22.8 | 130 |
|  | Investigation and Security |  |  |  |  |  |  |
| 5616 | Services | 2010 | 409 | 2020 | 661 | 61.6 | 252 |
|  | Services to Buildings and |  |  |  |  |  |  |
| 5617 | Dwellings | 2010 | 1028 | 2020 | 1330 | 29.4 | 302 |
| 5619 | Other Support Services | 2010 | 300 | 2020 | 325 | 8.3 | 25 |
|  | Waste Management and |  |  |  |  |  |  |
| 562 | Remediation Service | 2010 | 421 | 2020 | 522 | 24 | 101 |
| 5621 | Waste Collection | 2010 | 231 | 2020 | 330 | 42.9 | 99 |
|  | Waste Treatment and |  |  |  |  |  |  |
| 5622 | Disposal | 2010 | 50 | 2020 | 47 | -6 | -3 |
|  | Remediation and Other |  |  |  |  |  |  |
| 5629 | Waste Services | 2010 | 140 | 2020 | 145 | 3.6 | 5 |
|  | Nonagricultural Self- |  |  |  |  |  |  |
| 6010 | employed | 2010 | 9972 | 2020 | 12250 | 22.8 | 2278 |
| 61 | Educational Services | 2010 | 1969 | 2020 | 2063 | 4.8 | 94 |
|  | Local elementary \& |  |  |  |  |  |  |
| 611103 | secondary schools | 2010 | 7127 | 2020 | 6725 | -5.6 | -402 |
|  | Private elementary and |  |  |  |  |  |  |
| 611105 | secondary schools | 2010 | 812 | 2020 | 840 | 3.4 | 28 |
| 611202 | State junior colleges | 2010 | 1069 | 2020 | 1124 | 5.1 | 55 |
|  | State Colleges, Univ and |  |  |  |  |  |  |
| 611302 | Prof Schools | 2010 | 1872 | 2020 | 2006 | 7.2 | 134 |
|  | Private Colleges, Univ, |  | 756 |  |  |  |  |
| 611305 | and Prof Schools | 2010 |  | 2020 | 753 | -0.4 | -3 |
|  | Technical and Trade |  |  |  |  |  |  |
| 6115 | Schools | 2010 | 36 | 2020 | 45 | 25 | 9 |
|  | Other Schools and |  |  |  |  |  |  |
| 6116 | Instruction | 2010 | 27223 | 20202020 | 32634 | 19.9 | 54 |
| 6117 | Educational Support | 2010 |  |  |  | 47.8 | 11 |


| NAICS Code | Title | Estimate Year | Estimate <br> Year <br> Employment | Projected <br> Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Services |  |  |  |  |  |  |
|  | Health Care and Social |  |  |  |  |  |  |
| 62 | Assistance | 2010 | 29687 | 2020 | 39562 | 33.3 | 9875 |
|  | Ambulatory Health Care |  |  |  |  |  |  |
| 621 | Services | 2010 | 5123 | 2020 | 7279 | 42.1 | 2156 |
| 6211 | Offices of Physicians | 2010 | 1607 | 2020 | 2000 | 24.5 | 393 |
| 6212 | Offices of Dentists 2010 886 2020 975 10 89 <br> Offices of Other Health       |  |  |  |  |  |  |
| 6213 | Practitioners | 2010 | 514 | 2020 | 600 | 16.7 | 86 |
| 6214 | Outpatient Care Centers 2010 857 2020 1176 37.2 319 <br> Medical and Diagnostic       |  |  |  |  |  |  |
| 6215 | Laboratories 2010 14 2020 17 21.4 3 <br> Home Health Care       |  |  |  |  |  |  |
| 6216 | Services 2010 908 2020 2059 126.8 1151 <br> Other Ambulatory Health       <br> Car Seric       |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 6219 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 622002 | Employment | 2010 | 478 | 2020 | 500 | 4.6 | 22 |
|  | $\begin{array}{lllllll}\text { Employment } & 2010 & 478 & 2020 & 500 & 4.6 & 22 \\ \text { Local Hospital } & & & & \end{array}$ |  |  |  |  |  |  |
| 622003 | Employment | 2010 | 1422 | 2020 | 1450 | 2 | 28 |
|  | Private Hospital 2020 |  |  |  |  |  |  |
| 622005 | Employment | 2010 | 10628 | 2020 | 12695 | 19.4 | 2067 |
|  | Nursing and Residential |  |  |  |  |  |  |
| 623 | Care Facilities | 2010 | 10071 | 2020 | 14192 | 40.9 | 4121 |
|  | Residential Mental Health 2010 |  |  |  |  |  |  |
| 6232 | Facilities | 2010 | 3472 | 2020 | 5000 | 44 | 1528 |
|  | Community Care Facility |  |  |  |  |  |  |
| 6233 | for the Elderly | 2010 | 2467 | 2020 | 4400 | 78.4 | 1933 |
|  | Other Residential Care |  |  |  |  |  |  |
| 6239 | Facilities | 2010 | 1380 | 2020 | 1892 | 37.1 | 512 |
| 624 | Social Assistance | 2010 | 3865 | 2020 | 5396 | 39.6 | 1531 |
|  | Individual and Family |  |  |  |  |  |  |
| 6241 | Services | 2010 | 2454 | 2020 | 3550 | 44.7 | 1096 |
|  | Emergency and Other 2020 |  |  |  |  |  |  |
| 6242 | Relief Services | 2010 | 146 | 2020 | 180 | 23.3 | 34 |
| 6244 | Child Day Care Services | 2010 | 431 | 2020 | 516 | 19.7 | 85 |
|  | Agricultural Self- |  |  |  |  |  |  |
| 7010 | employed | 2010 | 1314 | 2020 | 1269 | -3.4 | -45 |
|  | Arts, Entertainment, and 2020 |  |  |  |  |  |  |
| 71 | Recreation | 2010 | 3748 | 2020 | 4028 | 7.5 | 280 |
|  | Performing Arts and |  |  |  |  |  |  |
| 711 | Spectator Sports | 2010 | 331 | 2020 | 381 | 15.1 | 50 |
|  | Performing Arts |  |  |  |  |  |  |
| 7111 | Companies | 2010 | 206 | 2020 | 243 | 18 | 37 |


| NAICS Code | Title | Estimate <br> Year | Estimate Year Employment | Projected <br> Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Performing Arts and |  |  |  |  |  |  |
| 7113 | Sports Promoters | 2010 | 49 | 2020 | 49 | 0 | 0 |
| 7115 | Independent Artists/Writors/Performers | 2010 | 38 | 2020 | 47 | 23.7 | 9 |
|  | Museums, Parks and |  |  |  |  |  |  |
| 712 | Historical Sites | 2010 | 232 | 2020 | 242 | 4.3 | 10 |
|  | Amusement, Gambling \& |  |  |  |  |  |  |
| 713 | Recreation Ind | 2010 | 3185 | 2020 | 3405 | 6.9 | 220 |
| 7132 | Gambling Industries | 2010 | 1974 | 2020 | 2050 | 3.9 | 76 |
|  | Other Amusement \& |  |  |  |  |  |  |
| 7139 | Recreation Industries | 2010 | 1182 | 2020 | 1320 | 11.7 | 138 |
|  | Accommodation and |  |  |  |  |  |  |
| 72 | Food Services | 2010 | 13851 | 2020 | 14802 | 6.9 | 951 |
| 721 | Accommodation | 2010 | 3430 | 2020 | 3860 | 12.5 | 430 |
| 7211 | Traveler Accommodation RV Parks and | 2010 | 3201 | 2020 | 3600 | 12.5 | 399 |
| 7212 | Recreational Camps | 2010 | 180 | 2020 | 214 | 18.9 | 34 |
|  | Rooming and Boarding |  |  |  |  |  |  |
| 7213 | Houses | 2010 | 49 | 2020 | 46 | -6.1 | -3 |
|  | Food Services and |  |  |  |  |  |  |
| 722 | Drinking Places | 2010 | 10421 | 2020 | 10942 | 5 | 521 |
| 7223 | Special Food Services | 2010 | 280 | 2020 | 300 | 7.1 | 20 |
|  | Drinking Places (Alcoholic |  |  |  |  |  |  |
| 7224 | Beverages) | 2010 | 1071 | 2020 | 954 | -10.9 | -117 |
| 722511 | Full-Service Restaurants | 2010 | 5165 | 2020 | 5498 | 6.4 | 333 |
|  | Limited-Service |  |  |  |  |  |  |
| 722513 | Restaurants | 2010 | 3905 | 2020 | 4190 | 7.3 | 285 |
|  | Other Services, Ex. |  |  |  |  |  |  |
| 81 | Public Admin | 2010 | 6262 | 2020 | 6634 | 5.9 | 372 |
| 811 | Repair and Maintenance | 2010 | 989 | 2020 | 1111 | 12.3 | 122 |
|  | Automotive Repair and |  |  |  |  |  |  |
| 8111 | Maintenance | 2010 | 782 | 2020 | 900 | 15.1 | 118 |
|  | Electronic Equipment |  |  |  |  |  |  |
| 8112 | Repair/Maintenance | 2010 | 14 | 2020 | 12 | -14.3 | -2 |
|  | Commercial Machinery |  |  |  |  |  |  |
| 8113 | Repair/Maintenance | 2010 | 153 | 2020 | 160 | 4.6 | 7 |
|  | Household Goods Repair |  |  |  |  |  |  |
| 8114 | and Maintenance | 2010 | 40 | 2020 | 39 | -2.5 | -1 |
|  | Personal and Laundry |  |  |  |  |  |  |
| 812 | Services | 2010 | 1017 | 2020 | 1025 | 0.8 | 8 |
| 8121 | Personal Care Services | 2010 | 619 | 2020 | 620 | 0.2 | 1 |
| 8122 | Death Care Services | 2010 | 149 | 2020 | 158 | 6 | 9 |
|  | Drycleaning and Laundry |  |  |  |  |  |  |
| 8123 | Services | 2010 | 136 | 2020 | 120 | -11.8 | -16 |


| NAICS Code | Title | Estimate Year | Estimate <br> Year <br> Employment | Projected <br> Year | Projected <br> Year <br> Employment | Percent Change | Total Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8129 | Other Personal Services Membership Organizations \& | 2010 | 113 | 2020 | 127 | 12.4 | 14 |
| 813 | Associations | 2010 | 3787 | 2020 | 4074 | 7.6 | 287 |
| 8131 | Religious Organizations Grantmaking and Giving | 2010 | 1644 | 2020 | 1848 | 12.4 | 204 |
| 8132 | Services <br> Social Advocacy | 2010 | 123 | 2020 | 138 | 12.2 | 15 |
| 8133 | Organizations Civic and Social | 2010 | 378 | 2020 | 408 | 7.9 | 30 |
| 8134 | Organizations <br> Professional and Similar | 2010 | 1124 | 2020 | 1174 | 4.4 | 50 |
| 8139 | Organizations | 2010 | 518 | 2020 | 506 | -2.3 | -12 |
| 814 | Private Households <br> Total Federal | 2010 | 469 | 2020 | 424 | -9.6 | -45 |
| 9291 | Government Federal government | 2010 | 2447 | 2020 | 2110 | -13.8 | -337 |
| 929199 | excluding Post Office | 2010 | 1744 | 2020 | 1550 | -11.1 | -194 |
| 9292 | Total State Government State government | 2010 | 5681 | 2020 | 5950 | 4.7 | 269 |
| 92923 | excluding Ed.and Hosp. | 2010 | 2262 | 2020 | 2320 | 2.6 | 58 |
| 9293 | Total Local Government Local government | 2010 | 19505 | 2020 | 19115 | -2 | -390 |
| 92933 | excluding Ed.and Hosp. | 2010 | 10956 | 2020 | 10940 | -0.1 | -16 |

Source: LAUS: MN DEED

## APPENDIX C: CONSUMER SURVEY QUESTIONS

Q1: "First, we would like to know how you are doing financially these days. Would you say that you (and your family living there) are currently better off or worse off financially than you were a year ago?"

Better now About the same Worse now Do not know

Q2: "Now looking ahead, do you think that one year from now you (and your family living there) will be better off financially, worse off, or just about the same as now?"

Will be better off About the same Will be worse off Do not know

Q3: "Now turning to business conditions in the country as a whole, do you think that during the next twelve months we'll have good times financially, bad times, or what?"
Good
Bad
Good and bad
Do not know

Q4: "Looking ahead, which would you say is more likely during the next five years or so - that in the country as a whole we'll have continuous good times, or bad times with periods of widespread unemployment?"

Good
Bad
Do not know

Q5: "Generally speaking, do you think now is a good or bad time for people to buy major household items, such as furniture, refrigerator, TV and things like that?"

Good Bad Good and bad Do not know
Q6: "The population of our region is reasonably older than the populations of WI, MN and the country as a whole, and it is predicted to stay that way. In your opinion, do you think our older population presents more benefits or more problems to the region? For example, benefits could be due to having more experienced workers and problems could be due to diminishing productivity of workers."

More benefits
More problems Don't know

Page 137 Nationac Bank
of Commerce


APPENDIX D: STOCK INFORMATION AND HISTORICAL RETURN INFORMATION


Company: Allete Inc.
Ticker:
ALE
Exchange: NYSE
Market Cap: $\$ 2.05$ Billion
Industry: Utilities- Regulated Electric
Description: Generates, and distributes electric power in the United States. The Company's business segments are comprised of Regulated Operations and Investments and Other.


Company: Ascena Retail Group Inc.
Ticker: ASNA
Exchange: NASDAQ
Market Cap: \$3.07B
Industry: Apparel Stores
Description: Ascena Retail Group, Inc., through its subsidiaries operates as a specialty retailer of apparel for women and tween girls. The company offers apparel, accessories, footwear, and lifestyle products, such as bedroom furnishings and electronics.



Company: Calumet Specialty Products Partners LP
Ticker:
CL
Exchange: NASDAQ
Market Cap: \$1.78B
Industry: Energy- Oil \& Gas Refining \&
Description: Calumet Specialty Products Partners LP is a producer of hydrocarbon products in North America. It operates in two segments: specialty products and fuel products; and owns plants located in Louisiana, Wisconsin, Montana, Texas, Pennsylvania and New Jersey.


Company: Canadian National Railway Company
Ticker: CNI
Exchange: NYSE
Market Cap: \$46.99B
Industry: Railroads
Description: Canadian National Railway Co is engaged in the rail and related transportation business. It transports goods for business sectors, ranging from resource products to manufactured products to consumer goods.



Company: Cliffs Natural Resources
Ticker: CLF
Exchange: NYSE
Market Cap: \$3.07 B
Industry: Industrial Metals \& Minerals
Description: Cliffs Natural Resources Inc. is a mining \& natural resources company. It produces iron ore pellets, fines and lump ore, and metallurgical coal.

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Company: Enbridge
Ticker: EEP
Exchange: NYSE
Market Cap: \$8.85B
Industry: Energy- Oil \& Gas Midstream
Description: Enbridge Energy Partners LP is engaged in the ownership and operation of crude oil and liquid petroleum transportation and storage assets, natural gas gathering, treating, processing, and transmission assets and marketing assets in USA.



Company: Ikonics
Ticker: IKNX
Exchange: NASDAQ
Market Cap: \$49.85M
Industry: Specialty Chemicals
Description: IKONICS Corporation is engaged in development, manufacturing and selling of photosensitive liquids ("emulsions") and films for the screen printing and awards and recognition industries.



Company: Louisiana- Pacific
Ticker: LPX
Exchange: NYSE
Market Cap: \$2.46B
Industry: Building Materials
Description: Louisiana-Pacific Corp. is engaged in the manufacture of building products. It operates in four segments: North America Oriented Strand Board (OSB); Siding; Engineered Wood Products (EWP); and South America.



Company: Polymet
Ticker: PLM
Exchange: NYSE
Market Cap: \$313.46M
Industry: Industrial Metals \& Minerals
Description: Canadian mine development company focused on the NorthMet copper-nickelprecious metals project through its wholly owned subsidiary, PolyMet Mining, Inc., a Minnesota corporation.



Company: Sappi Limited
Ticker: SPPJY

## Exchange: OTCPK

Market Cap: \$1.6B
Industry: Paper \& Paper Products
Description: Sappi, Ltd. is a paper and pulp group. The Company is a producer of coated fine paper used in books, brochures, magazines, catalogues and many other print applications.


Company: UnitedHealth Group
Ticker: UNH
Exchange: NYSE
Market Cap: \$74.84B
Industry: Health Care Plans
Description: UnitedHealth Group Inc. designs products, provides services and applies technologies that improve access to health and well-being services, simplify the health care experience and make health care more affordable.



Company:
US Steel
Ticker: X
Exchange: NYSE
Market Cap: \$3.49B
Industry: Basic Materials- Steel
Description: United States Steel Corporation is an integrated steel producer of flat-rolled and tubular products with major production operations in North America and Europe.


APPENDIX E: THE NORTHLAND BUSINESS CONFIDENCE SURVEY METHODOLOGY

The Northland Business Confidence Survey was constructed using the following seven questions:

1. What sector is your business in?
2. What is your number of employees?
3. Excluding season changes, evaluate the business indicators [Average Hours Worked, Number of Employees, Selling Prices, Capital Expenditures, Sales Revenue, Profits] relating to the current state of your business relative to the past six months?
4. Excluding normal seasonal changes, evaluate the business indicators [Average Hours Worked, Number of Employees, Selling Prices, Capital Expenditures, Sales Revenue, Profits] relating to your company for the next six months?
5. (2 questions examining general business conditions in previous six months): How has the outlook for your company changed? What is your evaluation of the level of general business activity?
6. (2 questions examining general business conditions in future six months): How will the outlook of your company change? What is your evaluation of the level of general business activity?
7. What factors are limiting your ability to increase business activity? Please check up to three.

The questions were created by the CSS Economic Research Team after reviewing numerous business confidence surveys administered by a wide variety of institutions to determine the basic framework for manufacturing such a survey. It was determined that the indicators selected were the most important and valuable factors that can be used to gauge business activity.

The survey was distributed via email to the following chambers in late September and early October: Hibbing Chamber of Commerce; Chisholm Chamber of Commerce; Hayward Chamber of Commerce; Two Harbors Chamber of Commerce; Cable Chamber of Commerce; Cloquet Chamber of Commerce; Rice Lake Chamber of Commerce; Duluth Chamber of Commerce; and the Superior Chamber of Commerce.

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## CONSTRUCTION OF INDEX

All questions have five possible answers: significantly decrease, moderately decrease, no change, moderately increase, and significantly increase. Each option is numbered 1-5 from least pessimistic to most optimistic. For example, a 5 would indicate a significant increase and a 2 would indicate a moderate decrease. A mean is determined for every question based on this system. The mean of each question is then added together and divided by the total number of questions to derive the mean of the survey as a whole. This number is then divided by 3 since 3 would indicate no change or complete neutrality. The number derived from this equation is then multiplied by 100 to give us an index reading with 100 equalling complete neutrality.

The survey generated 126 responses. The analysis was conducted on three different levels: (1) a general analysis of how all respondents answered the questions; (2) an analysis of responses by industry; (3) an analysis of responses broken down by size.

## RESOURCES

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