

ECONOMIC REPORT



MANUFACTURING IN MINNESOTA

Introduction to Economic Indicators

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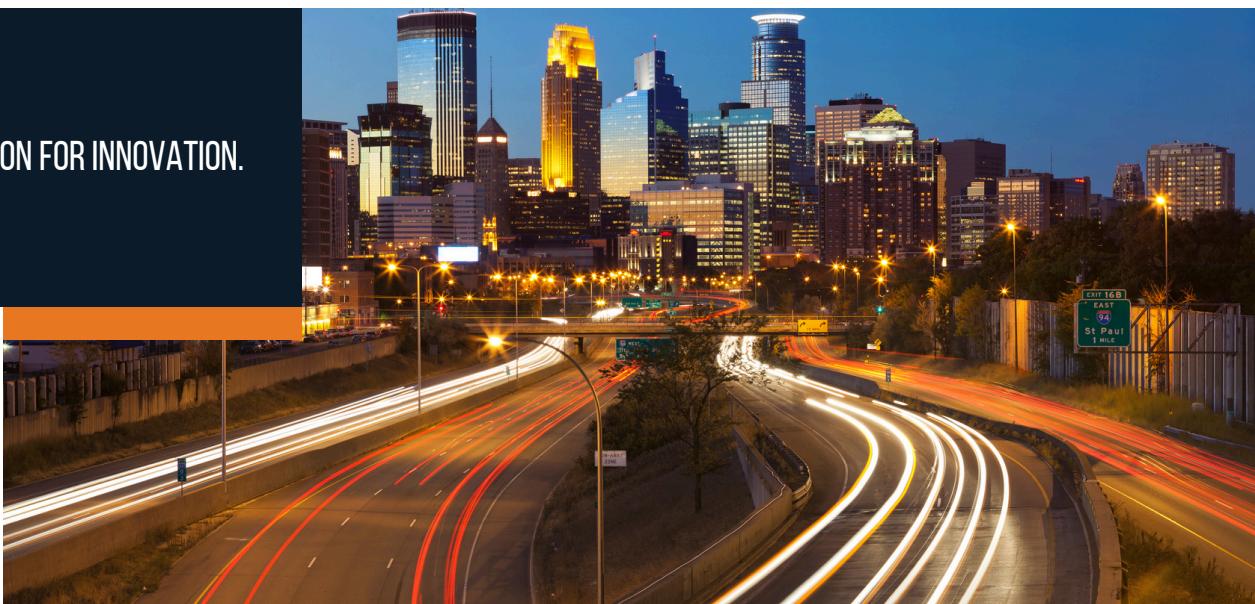
ABOUT BOYUM

YOUR TRUSTED MANUFACTURING TEAM

Manufacturing and distribution companies face growing challenges in today's environment, including rapid technology changes, pricing pressures, complex tax requirements, and ongoing talent shortages. At Boyum Barenscheer, we help clients navigate these obstacles and turn opportunity into advantage. Our experienced team partners closely with manufacturers and distributors to address their most important operational, financial, and strategic needs, including:

- Performance & Strategy Advisory
- Tax Consulting & Compliance
- Assurance & Compliance Services
- Accounting & Outsourced Services

WE SHARE YOUR PASSION FOR INNOVATION.



INTRODUCTION

In today's volatile economic environment, manufacturing leaders face increasing pressure to interpret shifting market conditions quickly and accurately. Whether you are managing plant operations, overseeing financial performance, or setting long-term strategy, the ability to understand and act on key economic indicators has never been more critical. These metrics offer far more than abstract data points - they provide visibility into the underlying forces shaping demand, profitability, and competitiveness across Minnesota's manufacturing landscape.

For executives responsible for guiding companies through uncertainty, economic indicators serve as an early-warning system. Trends in employment, production, pricing, and supply chain activity help illuminate where pressures are building and where opportunities may be emerging. When evaluated together, these indicators form a comprehensive picture of the health and direction of the industry, equipping leaders to anticipate shifts rather than simply react to them. This level of insight supports better budgeting, investment planning, workforce management, and risk mitigation decisions.

To help you stay ahead of these trends, this blog series will break down the most relevant indicators affecting Minnesota and the broader Midwest manufacturing sector. Each month, you will receive the latest data along with clear, practical commentary focused on what matters most for financial and operational decision makers. By staying informed and proactive, manufacturers can optimize resources, enhance resilience, and strengthen their competitive edge in an ever-changing market.

KEY INDICATORS | MINNESOTA MANUFACTURING



GROSS DOMESTIC PRODUCT: MANUFACTURING

Gross Domestic Product (GDP) refers to the total market value of all goods and services produced in a specified period. Manufacturing Gross Domestic Product (M-GDP) refers to the economic value added to GDP by the manufacturing industry.

Real GDP varies from Nominal GDP. Real GDP measures the total market value of goods and services, adjusted for inflation, to reflect the true value of goods and services produced. Real GDP is frequently used when performing long-term historical economic analysis as this provides a consistent baseline without the impact of inflation. Nominal GDP measures the total market value of goods and services produced at current prices. Nominal GDP is commonly used when performing a short-term economic analysis when inflation does not have as significant an impact. For the purposes of the analysis, we will use Real GDP.

M-GDP can be broken into subsectors, such as M-GDP of Durable Goods and M-GDP of Non-Durable Goods. Durable goods are those that are expected to have an economic useful life of three or more years. Non-durable goods are goods that are expected to have an economic useful life of less than three years. These indicators are useful in making economic comparisons to understand the landscape of how consumers are purchasing. This provides insight into the impact of interest rates, cash flow health, and the financing landscape of the economy.

This data is published on a quarterly basis, approximately two to three months after quarter-end, by the U.S. Bureau of Economic Analysis.

KEY INDICATORS | MINNESOTA MANUFACTURING



IMPORTS & EXPORTS OF MANUFACTURED GOODS

Imports of manufactured goods to the state of Minnesota represent the total dollar value of manufactured goods that have a final state of destination of Minnesota. Exports of manufactured goods from the state of Minnesota represent the total dollar value of manufactured goods that have a manufacturing origin of movement beginning in the state of Minnesota.

Performing an analysis of the value of manufactured goods imported to Minnesota against the value of manufactured goods exported from Minnesota provides various insights into the health of the manufacturing industry in the state. This analysis provides insight to the trade balance of the state – giving clarity to the dependence on external production and unveiling the national and global competitiveness of Minnesota manufacturing. Additionally, these indicators provide insight into the ever-changing landscape of tariffs. Shifts in trade volumes can reveal the impacts tariffs are having on Minnesota manufacturers.

Elevated levels of exports indicate higher levels of innovation and productivity, access to diverse markets, and reduced reliance upon local markets. Increased levels of exports relative to imports also indicates resiliency against supply chain disruptions – this promotes local supply chain strength which makes Minnesota less vulnerable to global shocks. Export growth has a direct correlation with job creation and investment in local facilities and technology.

Elevated levels of imports could indicate local Minnesota manufacturers struggle with costs, technology adoption, efficiency, or any combination of those, relative to other states or countries. Increased levels of imports also indicate the dependence upon external supply chains, during the COVID-19 pandemic, the impact of a heavy reliance upon imports caused disruption to local economies. Growing levels of imports indicate the potential for factory closures, job losses, or reduced hiring.

Policymakers often use the trade balance to identify industries that need support, navigate trade relationships with national and foreign governments, and the promotion of goods being exported. Finally, businesses can use this information in making decisions about expansion, sourcing, and pricing. This data is published monthly, with a two-month lag, by the U.S. Census Bureau.

KEY INDICATORS | MINNESOTA MANUFACTURING



AVERAGE WEEKLY HOURS & HOURLY EARNINGS OF PRODUCTION EMPLOYEES

Average weekly hours of production employees is an indicator that measures the level of hours per week worked by manufacturing production employees. Average hourly earnings of production employees measures the hourly pay of manufacturing employees. Production employees are employees who are directly involved in the manufacturing process, actively involved in the conversion of raw materials to finished goods.

Evaluating average weekly hours of production employees alone provides an indication of the level of demand seen from Minnesota manufacturers. High demand indicates strong order volumes and the potential for growth. Shorter average hours indicate slowing demand, potential seasonal adjustments, or an economic downturn. Hourly earnings by production employees, alone, provides insight into the cost structure of manufacturing. Growing average earnings indicate an attraction for skilled workers, but an increase in production costs, which impacts competition structure. Lower hourly earnings can increase the level of competitiveness but carry the risk of losing talent.

Evaluating these two indicators together provides insight into the workforce of Minnesota manufacturing and shows whether the industry is providing stable and sustainable employment. High hours with stagnant wages indicate a strain on labor or potential inefficiencies. Wage growth paired with steady hours indicates healthy growth and strong productivity levels.

Tracking these metrics along with production levels (M-GDP, for example) gives detail to reasons for growth or contraction and its relation to employment. Rising hours, combined with growth in output, but lack of earnings growth could indicate reliance on overtime rather than an investment in technology. Steady hours and rising wages, combined with growing output, reflect innovation and improved processes.

State agencies and businesses often use these metrics to aid in the development and design of workforce development programs, adjusting wage standards and labor regulations, or to assist in the implementation of automation, training, and employee investment to remain competitive in the industry. This data is published monthly, with a one-month lag, by the U.S. Bureau of Labor Statistics.

KEY INDICATORS | MINNESOTA MANUFACTURING



BUSINESS CONDITIONS INDEX

The Business Conditions Index (CI) is one of the most important economic indicators for the health of the manufacturing industry. The CI is a forward-looking indicator, which means that it is used to predict changes in the manufacturing industry prior to those changes being reflected in officially published data. CI levels above 50 indicate expansion of the industry, and levels below 50 indicate a contraction in the industry – similar to the scale used by the Institute of Supply Management for measuring the Purchasing Managers Index.

The CI is based on surveys of purchasing managers about new orders, production levels, delivery lead times, inventory, and employment. Some of these factors are adjusted to account for the seasonality of some manufacturing subsectors. The composition of these factors determines the overall CI for the United States and Mid-America (states in “Mid-America” include Arkansas, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and South Dakota). Digging deeper into these factors allows the users of the data to better understand what is driving the growth or contraction of the industry and provide deeper insight into the many components of the overall state of the manufacturing economy.

The CI is frequently used in manufacturers’ planning for raw materials purchasing, inventory level management, capital investment decisions, hiring strategy, and pricing strategy. Policymakers and economic planners evaluate the CI when adjusting economic forecasts and designing programs to support manufacturing during periods of industry stress. This data is published monthly, by Creighton University’s Dr. Ernest Gross in the Survey of Economic Conditions for Business in the Mid-American States.

KEY INDICATORS | NATIONAL MANUFACTURING



BUSINESS CONFIDENCE INDEX

The Business Confidence Index (BCI) is a forward-looking indicator that measures the overall sentiment and expectations of leaders in the manufacturing industry about future economic conditions. The BCI is measured on a scale of 100 - results measuring above 100 indicate an increased confidence in the near-future performance of manufacturers. BCI below 100 indicates pessimism for the near-term performance of the manufacturing industry. BCI at the Mid-America level is measured on a baseline of 50. Levels above 50 indicate positivity for the near future – levels below 50 indicate pessimism for the near future. This data is a summary of opinion surveys conducted with company managers and executives.

BCI is most effective when used in combination with other indices such as the Business Conditions Index (CI), Capacity Utilization (Cap-U), Industrial Production Index (IPI), and Employment and Wage Data. BCI signals economic trends in the manufacturing industry before that information shows up in hard data that is centered around historical results.

High confidence generally precedes increased hiring, capital investment, and production. Low confidence generally precedes slowdowns, freezes in hiring or a reduction in hours, leaning out of inventory levels, and cautious purchasing. National BCI data is published monthly by the Organisation for Economic Co-operation and Development (OECD).

Mid-America data is published monthly by Creighton University's Dr. Ernest Gross in the Survey of Economic Conditions for Business in the Mid-American States.

KEY INDICATORS | NATIONAL MANUFACTURING



PRODUCER PRICE INDEX: TOTAL MANUFACTURING

The Producer Price Index (PPI) is an important metric for manufacturers as this measures the average change in selling prices received by domestic producers for their output over time. Higher PPI levels indicate manufacturers are receiving increased prices for their goods and vice versa for lower PPI levels.

PPI reflects input and production cost trends. Increases generally reflect increases in raw materials, energy, transportation, or other production expenses. Understanding these trends at the business level can help businesses anticipate profit margins and better navigate pricing strategies.

PPI is a leading indicator of inflation at the wholesale level – when manufacturing PPI rises significantly in a brief period, consumers see increased prices later. Manufacturers can use PPI levels when negotiating short and long-term contracts, setting forward-looking pricing strategies, and evaluating their competitiveness in the local and national markets.

This data is published monthly, with a one-month lag, by the U.S. Bureau of Labor Statistics.

KEY INDICATORS | NATIONAL MANUFACTURING



CAPACITY UTILIZATION: MANUFACTURING

Capacity Utilization (Cap-U) is a key metric to manufacturers as it measures the percentage of available production capacity that is being used. The unofficial benchmark for high utilization is 80-85%, indicating strong demand and efficient operations. Levels under 80% generally indicate underused facilities and lack of operating efficiency which can lead to higher per-unit costs and lower profitability.

Upward trending Cap-U is a signal of strong demand and consistent effectiveness and efficiency of operations for manufacturers and a positive sign of economic growth; this often leads to new job creation in the industry. Downward trending Cap-U generally indicates weaker demand, lack of efficiency and effectiveness, and the need for a strategic adjustment.

Manufacturers can use Cap-U when making decisions. High Cap-U can create capacity constraints which lead to longer lead times and higher prices, which is a leading indicator of inflation. Making strategic decisions ahead of time can allow manufacturers to better navigate the landscape of a high Cap-U environment. When this indicator is consistently high, manufacturers can choose to invest in new equipment, facilities, or employees. On the contrary, when it is consistently low, manufacturers can choose to delay capital spending, consolidate operations, or make investments in other sectors of the business.

Additionally, policymakers monitor Cap-U to assess if the industry is operating near its limits, which can aid in planning for infrastructure improvements, training the workforce, or supporting the supply chain.

This data is published monthly by the Board of Governors of the Federal Reserve System.

KEY INDICATORS | NATIONAL MANUFACTURING



INDUSTRIAL PRODUCTION: MANUFACTURING

The Industrial Production Index (IPI) measures the real output of factories, plants, and other manufacturing facilities over time, while adjusting for inflation. Unlike other metrics, IPI is based on physical production rather than revenue or costs, making it a reliable gauge of manufacturing activity. This helps to determine whether the industry is expanding, contracting, or stable, independent of changes in price.

IPI is an indicator that has direct correlation with business cycles, whether growth or recession. Rising IPI indicates strong demand and growth in the sector, while declining IPI indicates slowing activity and contraction in the industry.

Manufacturers often use IPI to forecast future demand, understand business cycles, adjust production schedules, and make plans for inventory levels.

IPI is commonly used in tandem with the CI (see above) and the sub-indicators that flow into the CI. For example, high CI with rising IPI indicates a strong broad-based state of manufacturing, however, IPI growth with slowing New Orders (sub-indicator of the CI) can indicate an oncoming slowdown. IPI is also commonly used with Cap-U (see above). High Cap-U and rising IPI signals investment in the industry, while low utilization and weakening IPI signifies the risk of contraction and consolidation.

This data is published monthly by the Board of Governors of the Federal Reserve System.

LOOKING AHEAD

Understanding these indicators is essential for assessing the health and trajectory of Minnesota's manufacturing industry. Together, these indicators provide a comprehensive view of demand, cost pressures, workforce dynamics, and overall productivity, which enables businesses, policymakers, and investors to make informed decisions. By monitoring these indicators regularly, manufacturers can anticipate shifts in the market, optimize the allocation of resources, and maintain or grow their competitiveness in the manufacturing industry in Minnesota and the Midwest.

To keep you informed, this blog will be followed by monthly updates that provide the latest data and insightful commentary to help you stay ahead of trends and make informed business decisions.

Questions?

Reach out to us at info@myboyum.com.

