



Executive Summary 2023 Montana Manufacturing Report

Prepared by the
Bureau of Business and Economic Research
University of Montana



Executive Summary

This report is on the state of Montana manufacturing conducted for the Montana Manufacturing Extension Center (MMEC). The report and analysis were done by the Bureau of Business and Economic Research (BBER) at the University of Montana. This is the 27th year that BBER and MMEC have collaborated to produce reports on Montana's manufacturing climate. The three primary topics are: the state of manufacturing at the state and national level in a general economic context; a survey of Montana manufacturers about the state of Montana manufacturing; and an impact survey of firms which used MMECs consulting services. The report covers the year 2022 for the economic analysis and survey. The MMEC impact survey was conducted throughout 2022.

State of Montana Manufacturing

Montana's manufacturers face different challenges than the nation as a whole because the composition of manufacturing production is different and is primarily concentrated in non-durable production – the Bureau of Economic Analysis defines nondurable goods as goods that have an average life of less than three years. The two largest manufacturing sectors in Montana, petroleum and coal, and wood product manufacturing, are not among the seven largest sectors nationally, demonstrating how the Montana manufacturing sector differs substantially from the experience of the country.

Some summary facts about Montana manufacturing in 2022 are:

- Over 4,400 manufacturing firms are in operation in Montana, including sole proprietors;
- Manufacturing accounts for almost 21% of Montana's economic base;
- Manufacturing jobs paid about \$57,180 in earnings, compared to the state average of just under \$51,000;
- Accounts for 5.5% of total private state labor earnings equaling \$1.95 billion;
- Employs 4.4% of Montana's nonfarm workforce, with about 22,700 employees;
- Produced 6.6% of Montana's inflation adjusted output with a value of \$3.3 billion; and
- Montana manufacturing employment and output growth was a little under double the national average in 2022.

In the aftermath of the 2020 COVID-19 recession, Montana manufacturing employment, particularly durable manufacturing, bounced back relatively quickly from the deep economic drop in the second quarter of 2020. Last year, we predicted that durable manufacturing would be higher than pre-COVID levels with a year or so. Employment in this sector returned to pre-pandemic levels in 2021.

Montana manufacturers are active in global markets as well. The three largest export sectors for Montana in 2022 were: chemicals, machinery and transportation equipment. Food, beverages and tobacco fell out of second place during the pandemic. By far the largest export market is Canada, accounting for almost 30% of Montana's manufactured exports. In

2022, the remaining large export markets were: China (2), South Korea (3), Mexico (4), and Belgium (5).

Montana Manufacturers Survey

This section of the report presents the findings of the 2022 Montana Manufacturers Survey. The purpose of the survey is to capture manufacturers' assessments of their plant's economic performance in 2022 and their outlook for 2023. Manufacturing in Montana remains predominantly driven by small businesses. According to the U.S. Census Bureau, Montana houses 1,415 manufacturing firms with employees, and a significant 68% of Montana manufacturers employ less than ten individuals. Notably, there are no manufacturers with 300 or more workers in the state.

Highlights from the 2022 manufacturing survey:

- In 2022, about 48% of manufacturers saw increased sales and production, though profits declined, with 33% of durable and 42% of nondurable manufacturers reporting lower profits than a year ago.
- A year ago, 55% of nondurable manufacturers increased their capital expenditures. In contrast, in 2022, this proportion decreased to 42%. Durable manufacturing, on the other hand, saw no significant decrease in capital investment.
- Two-thirds of firms had a stable workforce size compared to 2021. Less than half, particularly 49% of nondurable firms, reported worker shortages in 2022.
- A growing number of Montana-based manufacturers are adopting a more optimistic outlook despite facing challenging economic conditions. Specifically, 32% expect improvements in their supply chains in 2023, which is a notable increase from the 8% who expressed the same sentiment last year.

In summary, the primary challenges faced by manufacturers continue to be largely associated with inputs. These challenges include difficulties in the labor market, high costs of raw materials, supply chain complexities, rising expenses for transportation and fuel, along with concerns about inflation.

Evaluation of Montana Manufacturing Extension Center

The Montana Manufacturing Extension Center works with manufacturers to create and retain jobs, innovate, reduce costs, increase profits, and save time and money. MMEC employees typically make on-site visits to manufacturing clients to assess problems, suggest appropriate solutions and assist with implementation. MMEC closely monitors its performance by welcoming feedback and carefully following an evaluation procedure developed by the National Institute of Standards and Technology (NIST) and administered by an independent third party. The primary NIST survey findings from 2022 are as follows:

- Montana manufacturing clients were very satisfied, with 67% of respondents saying they relied exclusively on MMEC as a business service provider;

- Approximately 91% of respondents said they were highly likely to give a positive recommendation of MMEC to other potential clients;
- Staff expertise was again the most important factor for firms to use MMEC services;
- The most important challenges facing surveyed MMEC clients were employee recruitment and retention, ongoing continuous improvement/cost reduction strategies, and identifying growth opportunities;
- The Montana return on investment for MMEC during 2022 was 7.7 to 1; and
- The ROI for MMEC clients was about 30.3 to 1.