



2022 Montana Manufacturing Report: Executive Summary

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 26th 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 MMEC's consulting services. The report covers the year 2021 for the economic analysis and survey. The MMEC impact survey was conducted during the first quarter of 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 2021 are:

- Over 4,100 manufacturing firms are in operation in Montana, including sole proprietors;
- Manufacturing accounts for over 20% of Montana's economic base;
- Manufacturing jobs paid about \$57,000 in earnings, compared to the state average of just under \$51,000;
- Accounts for 6.4% of total private state income equaling \$1.6 billion;
- Employs 4.3% of Montana's nonfarm workforce, with about 21,400 employees;
- Produced 7.8% of Montana's output with a value of \$3.8 billion; and
- Montana manufacturing employment and output growth was more than double the national average in 2021.

In the aftermath of the 2020 COVID-19 recession, Montana manufacturing bounced back relatively quickly from the deep economic drop in the second quarter of 2020. Last year, we predicted that nondurable manufacturing would return to pre-COVID levels with a year or so. Employment in this sector returned to pre-pandemic levels in early 2021. Durable manufacturing is forecast to return to the long-run trend a year or so later, in line with our predictions from a year ago.

Montana manufacturers are active in global markets as well. The three largest export sectors for Montana in 2021 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 2021, 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 2021 Montana Manufacturers Survey. The purpose of the survey is to learn the manufacturers' assessment of their plant's economic performance in 2021 and their outlook for 2022. Manufacturing in Montana is predominantly performed by small businesses. The U.S. Census Bureau reports 1,700 manufacturing firms with employees in Montana, and 51% of Montana manufacturers have five or less employees. There are no manufacturers with 300 or more workers in the state.

Highlights from the 2021 manufacturing survey:

- Over one-half of manufacturing firms saw an increase in total sales and profits from 2020;
- Ninety-five percent of firms did not reduce production capacity;
- A minority of firms (21%) reduced employment;
- Almost one-half of Montana's manufacturing firms experienced a significant worker shortage;
- Roughly 61% of all firms had supply chain issues in 2021, similarly 61% experienced issues with the cost of intermediate goods; and
- 70% of durable good manufactures experienced issues with finding employees, compared to 30% of nondurable producers facing the same problem.

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 2021 are as follows:

- Montana manufacturing clients were very satisfied, with 66% of respondents saying they relied exclusively on MMEC as a business service provider;
- Approximately 90% 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 ongoing continuous improvement/cost reduction strategies, employee recruitment and retention, and product innovation/development;
- The Montana return on investment for MMEC during 2021 was 7.4 to 1; and
- The ROI for MMEC clients was about 42.8 to 1.



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