2025 Evaluation and Impacts of the **Montana Manufacturing Extension Center**

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Executive Summary

The 2025 evaluation of the Montana Manufacturing Extension Center (MMEC) highlights the Center's critical role in supporting Montana's manufacturers through expert technical assistance, workforce development, and operational improvements. Based on an independent survey of 120 clients, the largest response in the evaluation's history, this report documents the measurable economic impact and continued high satisfaction with MMEC services.

Nearly all of the respondents (98.3%) said they would recommend MMEC to others, with a Net Promoter Score of 95.8, its highest level to date. Manufacturers consistently cited the Center's staff expertise, sector-specific knowledge, and track record of results as key reasons for engagement.

<u>In 2024, MMEC-assisted firms reported:</u>

- 642 jobs created or retained (including a 21% increase in job retention over expectations)
- $61 million in increased or retained sales
- $14.7 million in cost savings and $8.1 million in avoided unnecessary investments
- $39 million in total investment, with a 231% increase in new product development

These direct impacts supported an estimated 1,887 total jobs statewide and $112 million in labor income. The IMPLAN-based employment multiplier of 2.94 indicates that each manufacturing job supported nearly two additional jobs elsewhere in the economy. These gains generated $3.8 million in additional personal income tax revenue for the state.

<u>Return-on-investment metrics underscore MMEC's value:</u>

- In 2024, the ROI to the Montana taxpayer was $4.05 for every $1 invested
- The ROI for MMEC clients was $35.97 per $1 in project fees

As manufacturers continue to navigate workforce shortages, cost pressures, and shifting markets, MMEC remains a trusted and high-impact resource, according to the survey. The 2025 evaluation confirms that MMEC delivers measurable value to both its clients and the broader Montana economy.

The Montana Manufacturing Extension Center

The Montana Manufacturing Extension Center (MMEC) is a statewide manufacturing outreach and assistance center staffed by full-time professionals with extensive experience in manufacturing and business in a variety of industries. MMEC's mission is to grow Montana's economy by helping manufacturers succeed.

MMEC serves the manufacturers of Montana by helping them assess and improve their manufacturing operations, providing training and workforce development, and leveraging research and technological developments to keep manufacturing competitive in the state.

Established in 1996, MMEC is housed in the Norm Asbjornson College of Engineering at Montana State University in Bozeman, with remote offices in Billings, Missoula, Kalispell, Great Falls, Butte, and Sidney. The Center's staff has a combined experience of hundreds of years in manufacturing and offers expertise on a broad range of topics.

MMEC is also part of the National Institute of Standards and Technology's Manufacturing Extension Partnership (MEP) National Network. NIST is a non-regulatory agency of the U.S. Department of Commerce that promotes U.S. innovation and industrial competitiveness. The MEP National Network is a unique public-private partnership with centers in all 50 states and Puerto Rico dedicated to serving only small- and medium-sized manufacturers that pay fees for services provided.

Since 2000, MMEC's clients have reported project impacts on their businesses through an independent third-party survey. Results of these surveys show that MMEC has strengthened Montana's manufacturing economy between 2000 and 2025 by generating:

- **$444 million** in new investment
- **$1,607 million** in new and retained sales
- **8,374** new and retained jobs
- **$224 million** in cost savings

The MMEC evaluation process follows guidelines developed by NIST as part of its management information reporting procedures. NIST specifies the timing of the evaluation and provides a standardized questionnaire distributed to manufacturing firms served by MMEC. The analysis of the surveys and a written report are provided by the Bureau of Business and Economic Research (BBER) at the University of Montana.

Manufacturing clients are asked to evaluate the effectiveness of MMEC's services and to quantify the economic impact of MMEC's activities on their businesses and the broader Montana economy. Surveys are conducted six months after the project's completion and include questions about client satisfaction as well as specific economic outcomes tied to the engagement. For the 2024 evaluation period, MMEC provided the independent analysts at BBER with copies of the completed questionnaires. A total of 120 clients responded, marking the largest sample size since the evaluations began and surpassing the approximately 100 responses received in both 2022 and 2023.

Overall Satisfaction

Montana manufacturers continue to express strong satisfaction with MMEC's services. In 2024, 36.1% of respondents reported using external providers for business performance services, up slightly from 33% in 2022. This upward trend suggests a growing openness to outside support, with MMEC remaining a trusted partner among those who seek external expertise.

Table 1: Have you used any external providers for business performance services?

	Frequency	*Percent*
Yes	43	36.1%
No	76	63.8%

When asked whether they would recommend MMEC to others, nearly all respondents said they would. In 2024, 98.3% rated their likelihood of recommending MMEC between 8 and 10 on a 10-point scale. The Net Promoter Score (NPS), a key indicator of client loyalty and satisfaction, reached 95.8, its highest level in recent years, reflecting MMEC's ongoing strong reputation and the confidence Montana's manufacturers place in its services.

Table 2: Would You Recommend MMEC to Other Companies?

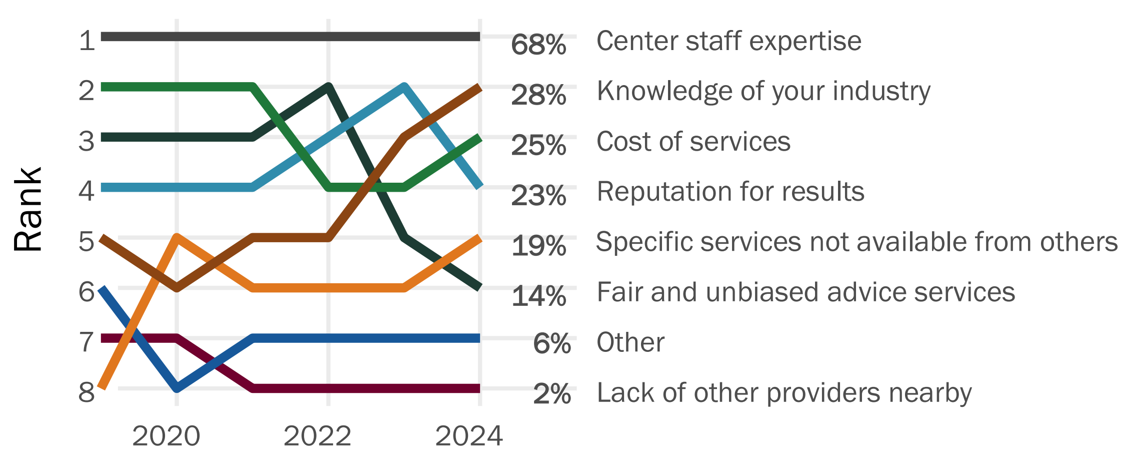
Score (0 – 10)	*Frequency*	*Percent*
10	112	93.3%
9	4	3.3%
8	2	1.7%
1	1	0.8%
Do not know	1	0.8%

This high level of satisfaction raises an important question: What makes MMEC the preferred choice among Montana manufacturers? The following section explores the specific factors that drive firms to seek out MMEC's support.

Why Choose MMEC?

Over the past five years, the reasons manufacturers choose to work with MMEC have shifted, with several clear results emerging. The most consistently cited factor is staff expertise, which remains the leading reason firms engage with MMEC. In 2024, more than two-thirds of respondents identified it as a key reason for choosing the center.

Figure 1: Important factors for your firm choosing MMEC, 2019 to 2024



Client Comments

The NIST questionnaire provides several opportunities for Montana manufacturers to provide suggestions and comments to MMEC. These responses were edited slightly to preserve anonymity and grouped by topic. These comments provide insight into the many ways manufacturers benefit from MMEC services. Most of the comments are highly positive and detailed. As in the past, respondents made several specific suggestions concerning ways in which MMEC may further tailor its services in the future.

Expertise, Impact, and Trusted Support

"[MMEC employee]'s teaching style is fantastic… It's like learning from a friend rather than a traditional instructor. I highly recommend that business owners, managers, and up-and-coming team members take this class with [MMEC employee]."

"[MMEC employee] has been super helpful and cares about our company. I would like to keep moving in the direction of having a plant that runs like the book, "The Goal."

"The MMEC staff are highly capable and a trusted resource for small manufacturers like me in the State of Montana."

"We have greatly appreciated working with MMEC over the years… Thanks to their hard work we achieved zero nonconformities in our 2024 recertification audit."

"Manager reported that this was the single most impactful project that helped her grow in her skills. [MMEC employee] is a highly effective, skilled, reliable, and positive trainer."

"Assistance and guidance [are] priceless to a small business. The benefits certainly have guided us to manage our business more efficiently… The training provided was easily comprehended and easily implemented, therefore having a success story for our business. [MMEC employee] has guided us with other opportunities and educated us on further paths that we could possibly consider."

"The diverse professional experience and depth of knowledge of process and tools helped [MMEC employee] provide tremendous value. This Montana manufacturer is much more resilient as a result."

"I wouldn't hesitate for a second to recommend MMEC to any Montana manufacturer that is doing manufacturing at any level."

Suggestions for MMEC

"Lower the cost of the various services to encourage engagement from small companies."

"Improve communication on personnel when taking a course and they [are] expected to be offsite."

"Better background or vetting of third-party contractors referred to provide work outside the scope of MMEC."

"More hands-on delivery and engagement in the manufacturing process would have been nice. More detailed process analysis would have been helpful."

"Mentorship programs or business management advocates would be helpful."

Closely following is MMEC's knowledge of individual industries, which has grown in importance over time. In 2024, 28% of firms cited this as a primary reason, more than double the share in 2020. This suggests that beyond general technical expertise, MMEC's familiarity with the specific needs and dynamics of different manufacturing sectors has become an asset for clients.

Cost of services and reputation for results round out the next most frequently cited factors. Both reflect the importance of returns on investment for manufacturers: firms are not only looking for expertise but also for high-value services at reasonable costs. These two factors have shown consistent importance over the years, underscoring MMEC's ability to deliver measurable outcomes in a cost-effective manner.

Less frequently cited reasons include access to unique services not available elsewhere, the impartiality of MMEC's advice, and the lack of other nearby providers, though these remain relevant for a subset of firms.

Overall, the 2024 survey reflects strong and sustained confidence in MMEC's staff and their ability to deliver tailored, high-impact support. As manufacturers face increasingly complex challenges, MMEC's blend of general expertise and sector-specific knowledge continues to be a key driver of engagement.

Future Challenges

Survey data from the NIST questionnaire (2020–2024) highlight how manufacturers' concerns have evolved in response to both ongoing industry trends and major disruptions such as the COVID-19 pandemic, supply chain instability, and shifting economic conditions.

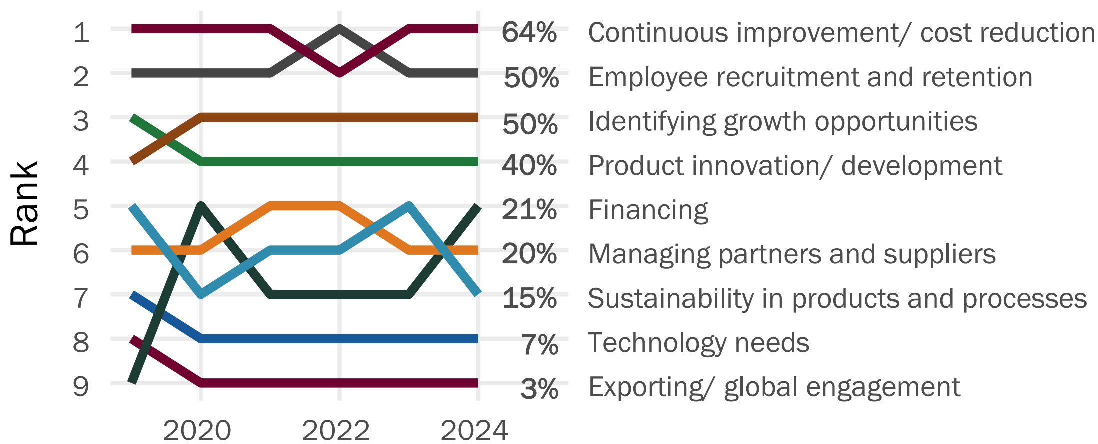
Cost control and process optimization—captured under "ongoing continuous improvement and cost reduction strategies"—was the leading concern in 2020 (70.6%) and remains prominent in 2024 (64.3%). Despite a modest decline over the period, it underscores manufacturers continued need to improve efficiency amid rising input costs and competitive pressure.

Workforce issues, particularly employee recruitment and retention, have remained one of the most pressing challenges. While the share of respondents citing this issue peaked at 60% in 2021, it remained high in 2024 at 50%, reflecting persistent difficulties in attracting and keeping skilled labor in a tight labor market.

Identifying growth opportunities has become an increasingly important focus. After dipping in 2022, this concern rose to 50% of respondents in 2024, signaling renewed attention to market expansion, diversification, and innovation in uncertain economic conditions.

Product innovation and development has consistently been a common concern, ranking fourth each year, with 40.5% of manufacturers citing it in 2024. This suggests ongoing recognition of the need to develop new products but the focus remains on cost reductions, workforce, and growth.

Figure 2: Important future challenges facing your business



Supply chain challenges, reflected in the "managing partners and suppliers" category, spiked in 2021–2022 at the height of global disruptions. While these concerns have eased somewhat, with just under 20% identifying them as a challenge in 2024, they remain a notable consideration for many firms.

Two areas that have seen significant shifts are financing and sustainability. Financing, the least-cited issue in 2019, rose to the fifth most-cited challenge in 2024 (21.4%), likely driven by tighter credit conditions and higher interest rates. Sustainability in products and processes peaked in 2021 but has since declined, suggesting that while environmental concerns remain relevant, they are less urgent than other operational or financial issues for most respondents.

Consistently, the fewest respondents have mentioned technological needs, exporting, and global engagement. This pattern indicates that most Montana manufacturers focus on domestic markets and internal operations rather than expanding internationally or investing in advanced technologies.

Taken together, the data reveal how manufacturers are balancing persistent concerns like workforce retention and cost control with shifting challenges in financing and supply chains. As external conditions evolve, firms are navigating a mix of short-term challenges and long-term pressures.

Quantitative Estimates of MMEC Visit Outcomes

The 2024 survey results provide a detailed look at the measurable impacts of MMEC's work with Montana manufacturers. While a 15% increase in survey participation naturally contributed to higher total values, this alone does not explain the gains. As shown in Table 3, eight of the 11 questioned outcomes rose more than expected, indicating meaningful growth in MMEC's service outcomes beyond just expanded participation. Additionally, some clients noted the challenge of capturing long-term benefits, especially from shorter engagements, within a single survey window, suggesting that the reported figures may understate MMEC's overall impact.

Job-related outcomes remain a key indicator of MMEC's effectiveness. In 2024, MMEC-assisted manufacturers reported a total of 642 jobs saved or created, including 512 retained jobs, a 21% increase over expectations. While job creation declined relative to expectations, the strong growth in job retention highlights MMEC's role in helping firms address one of the most persistent challenges cited by Montana manufacturers over the past six years: maintaining a stable workforce.

Sales outcomes also saw meaningful gains. Total increased and retained sales reached $61 million in 2024, up from $46 million the prior year. The bulk of this growth came from an increase in new sales, which rose to $19 million, and an additional $10 million in retained sales. While broader economic headwinds may be slowing overall market expansion, these results suggest MMEC continues to help firms grow revenue and protect existing market share.

Cost-related outcomes improved sharply as well. Reported cost savings jumped to $14.7 million, a 46% gain over expectations, while firms avoided an additional $8.1 million in unnecessary investments. These results underscore MMEC's strength in helping companies streamline operations and avoid costly missteps, particularly in times of economic uncertainty.

Investment patterns were mixed. Overall, total investment increased by 23%, above expectations, led by a dramatic rise in new product investment, which more than tripled year over year. In contrast, human capital investment declined, and plant and equipment investment came in slightly below expectations—potential signs that firms are being cautious with staffing and capital expenditures despite renewed interest in product development.

Overall, the 2024 survey reflects a strong and growing return on MMEC's services, especially in areas that directly affect firm performance and viability. Cost savings and avoided investments were the largest areas of quantifiable impact, helping Montana manufacturers build resilience and strengthen their bottom lines in an increasingly competitive environment.

Table 3: Total sales, costs, investments, and jobs earned or saved, 2023 and 2024

Q	*Category*	*2024*	*2023 Per Respondent*	2024 Per Respondent	% Change Per Respondent
	Total jobs saved/retained	642	4.68	5.35	+14%
5	Retained jobs	512	3.53	4.27	**+21%**
7	Created jobs	130	1.15	1.08	-6%
	Total sales	$60,786,248	$442,327	$506,552	+15%
4	Increased sales	$18,993,501	$136,027	$158,279	**+16%**
6	Retained sales	$41,792,747	$306,272	$348,273	**+14%**
	Total Investment	$39,002,281	$264,588	$325,019	+23%
12	New products	$10,964,522	$27,649	$91,371	**+231%**
9c	Human capital	$1,007,266	$14,970	$8,394	-44%
9a	Plant or equipment	$23,282,388	$204,206	$194,020	-5%
9b	Information	$1,206,388	$5,846	$10,053	**+72%**
9d	Other areas	$2,541,717	$11,932	$21,181	**+78%**
10	Avoid unnecessary	$8,127,162	$41,512	$67,726	**+63%**
8	Cost savings amount	$14,727,610	$83,894	$122,730	**+46%**

Economic Impacts of MMEC Visits and Services

MMEC questioned clients about the number of new jobs created and the number of jobs retained due to MMEC services. The 2024 respondents reported 130 new jobs created and 512 jobs retained for a total of 642 jobs.

The preliminary data suggest that average wages for Montana manufacturing jobs were about $73,639 in 2024, compared to the state average income of $57,961. Total wages associated with the new and retained jobs were approximately $47.3 million.

BBER's economic impact model, IMPLAN, estimates that the 642 new and retained manufacturing jobs due to MMEC services supported a total of 1,887 jobs statewide in 2024. This includes 1,245 additional jobs in other sectors of the economy—such as transportation, business services, and local retail—driven by supply chain purchases and household spending. The implied employment multiplier is 2.94, meaning that each manufacturing job supports roughly 1.94 jobs elsewhere in the economy.

Table 4: Economic impacts of MMEC services, 2024

Sector	*Jobs*	*Wages*	*Income taxes*
Manufacturing	642	$47,276,479	$1,428,367
Other industries	1,245	$65,175,372	$2,357,795
Total	*1,887*	*$112,451,851*	*$3,786,162*

Altogether, these jobs generated an estimated $112.5 million in wages and contributed approximately $3.8 million in personal income tax revenue to the State of Montana.

Return on Investment and Fees

In 2024, the Montana Manufacturing Extension Center (MMEC) continued its crucial role in supporting the state's manufacturing sector with significant public and private funding. In this year, MMEC was awarded $839,900 from the National Institute of Standards and Technology, with the same requirement to match those federal funds. MMEC matched the federal award with $750,000 in funding from the state of Montana and an additional $782,568 in project fees paid by Montana manufacturers who utilized MMEC's services.

To assess the effectiveness of these investments in 2024, we can calculate the Return on Investment (ROI) for both the state of Montana and MMEC clients based on the economic impact they realized through these funds.

In 2024,

– MMEC's ROI to the Montana taxpayer was **$4.05 to 1.**

– ROI for MMEC clients was **$35.97 to 1.**

ROI for the State of Montana

The ROI for the state of Montana is calculated by comparing the increase in Montana individual income taxes generated from jobs created or retained due to MMEC's efforts, to the state's contribution to MMEC. In 2024, MMEC's activities generated approximately $3.8 million in Montana individual income taxes from both direct and indirect jobs related to their work.

Using the ROI formula:

$$ROI = \frac{Benefits\ from\ Investment - Cost\ of\ Investment}{Cost\ of\ Investment} = \frac{\$3{,}786{,}162 - \$750{,}000}{\$750{,}000}$$

$$= \$4.05\ to\ \$1$$

This means that for every dollar Montana invested in MMEC in 2024, the state gained $4.05 in additional individual income tax revenue.

ROI for MMEC Clients

The calculation for MMEC clients' ROI remains the same as previously explained, based on the cost savings, avoided unnecessary investments, and gross margin from new or retained sales.

Benefits to MMEC Clients:

- Cost savings: $14,727,610
- Avoided unnecessary investments: $8,127,162
- New or retained sales: $60,786,248, with a 10% gross margin resulting in $6,078,625.

Total benefits for MMEC clients:

$$Total\ benefits = \$14{,}727{,}610 + \$8{,}127{,}162 + \$6{,}078{,}625 = \$28{,}933{,}397$$

The cost of investment for MMEC clients in 2024 is $782,568 in project fees.

Using the ROI formula:

$$ROI = \frac{Benefits\ from\ Investment - Cost\ of\ Investment}{Cost\ of\ Investment} = \frac{\$28{,}933{,}397 - \$782{,}568}{\$782{,}568}$$

$$= \$35.97\ to\ \$1$$

This means that for every dollar MMEC clients paid in project fees to MMEC in 2024, they received $35.97 in net revenue.