

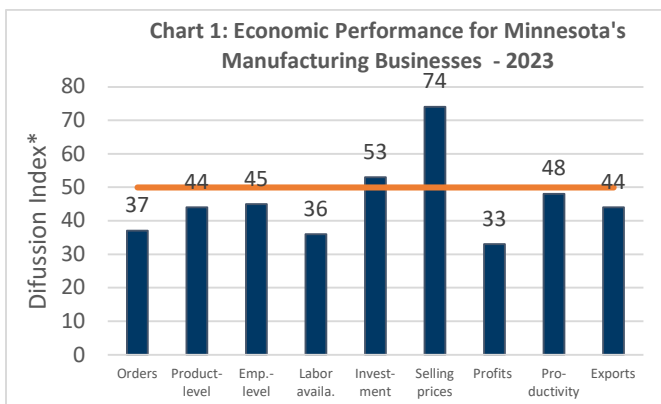


Manufacturers Expect Continued Labor Tightness in 2024

A random sample survey of Minnesota manufacturers conducted in November-December of 2023 by the Minnesota Department of Employment and Economic Development and the Federal Reserve Bank of Minneapolis reports that Minnesota manufacturers expect tight labor availability and increased wages and benefits in 2024. Other results show that around 60% of manufacturers expect unchanged production, employment level and labor availability.

The Manufacturing Industry in 2023

Compared to 2022, respondents experienced declining or unchanged conditions. Most diffusion indexes* were below 50, indicating contraction, particularly for profits, labor availability and number of orders (see Chart 1). Fifty-six percent of respondents indicated they experienced unchanged productivity while 51% reported the same production and employment levels. Only a third of respondents indicated an increase in investment, resulting in a diffusion index of 53, suggesting modest expansion. Increasing selling prices produced a diffusion index of 74, indicating concern for inflation (see Chart 1).

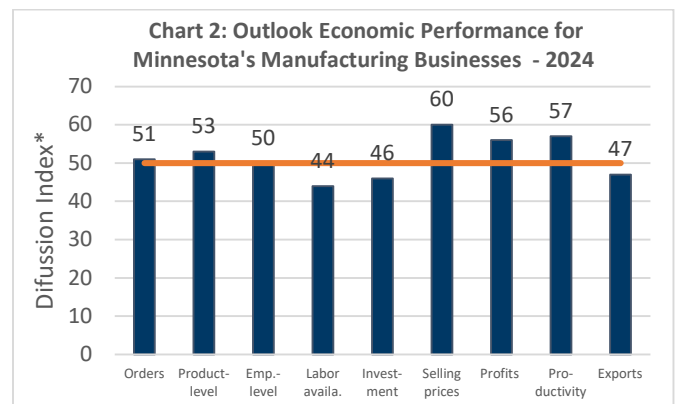


*A diffusion index greater than 50 indicates expansion, lower than 50 indicates contraction.

Outlook for the Manufacturing Industry

Labor market tightness continued into 2023 and the trend is expected to linger for 2024. Nearly 26% of respondents expect a decline in labor availability. The diffusion index* for this metric is 44, below the threshold of 50, indicating contraction. Consequently, more than 60% of respondents predict wages to increase at least 3% to attract and retain workers (see Table 1).

Results for other metrics show unchanged and mildly improved conditions suggesting that manufacturers are slightly hopeful for 2024. Productivity, profits, production level and number of orders show diffusion indexes slightly above the threshold of 50, indicating shy expansion. Employment level is mostly expected to remain unchanged with a diffusion index of 50 (see chart 2).



*A diffusion index greater than 50 indicates expansion, lower than 50 indicates contraction.

Outlook on the State Economy

Manufacturers are less optimistic about the outlook for the state's economy. In particular, 50% anticipate a decline in consumer spending. The diffusion index for

this metric (29) is significantly below the threshold of 50, suggesting contraction and is the lowest among diffusion indexes for the economy outlook.

Respondents were almost equally divided between those who expect unchanged corporate profits (43%) and those who anticipate a decline (44%) (see Table 1).

About the effect of current interest rates, 51% of respondents indicated they expect a contraction in

capital investment while 48% anticipate a decline in savings.

A new question inquired about the use of AI. Nearly 70% of respondents specified that they don't have systems and tools in place while 13% indicated it cannot be trusted. Nonetheless, comments indicated that manufacturers are investigating AI options.

Table 1- Minnesota 2023 Manufacturing Business Condition Survey Results

Compared to 2022, in 2023, your location's:	Up	Same	Down	Diffusion Index 2023*	Diffusion Index 2022*
Number of orders	28%	18%	54%	37	64
Product/service production level	18%	51%	31%	44	64
Employment level	19%	51%	29%	45	57
Labor availability	13%	45%	42%	36	n/a
Investment in plant/equipment	32%	41%	27%	53	65
Selling prices	59%	30%	12%	74	89
Profits	17%	31%	52%	33	49
Productivity	20%	56%	24%	48	53
Exports	5%	77%	18%	44	46

Labor indicators in 2023, compared to 2022:	Decrease	0%	1-2%	3-5%	6-9%	>10%
Wages per worker	2%	13%	10%	49%	19%	7%
Benefits per worker	6%	22%	13%	30%	21%	9%

Compared to 2023, in 2024, you expect your location's:	Up	Same	Down	Diffusion Index 2023*	Diffusion Index 2022*
Number of orders	31%	40%	29%	51	56
Product/service production level	23%	60%	17%	53	61
Employment level	20%	59%	21%	50	62
Labor Availability	14%	60%	26%	44	n/a
Investment in plant/equipment	19%	54%	27%	46	54
Selling prices	36%	48%	16%	60	74
Profits	35%	42%	24%	56	53
Productivity	28%	58%	14%	57	65
Exports	7%	79%	14%	47	51

Expected labor indicators in 2023, compared to 2022:	Decrease	0%	1-2%	3-5%	6-9%	>10%
Wages per worker	3%	12%	22%	54%	8%	1%
Benefits per worker	3%	27%	17%	34%	13%	6%

What is your outlook on the following state economic indicators next year:	Up	Same	Down	Diffusion Index 2023*	Diffusion Index 2022*
Business investment	16%	48%	36%	40	44
Employment	16%	52%	32%	42	47
Consumer spending	8%	42%	50%	29	31
Inflation	52%	32%	16%	68	82
Economic Growth	10%	45%	45%	33	-
Corporate profits	13%	43%	44%	35	33

*A diffusion index greater than 50 indicates expansion, lower than 50 indicates contraction.

(Continuation)

Expected impact of current interest rates on your businesses in 2024	Up	Same	Down	Diffusion Index 2023*
Capital investment	7%	42%	51%	28
Hiring	6%	58%	37%	35
Savings	7%	44%	48%	29
Inventory	6%	50%	44%	31
Pricing to consumers	50%	43%	7%	72

*A diffusion index greater than 50 indicates expansion, lower than 50 indicates contraction.

Does your company use or plan to use AI?	Percent
Yes, to enhance human-robot operations	9%
Yes, for testing	7%
Yes, to improve product development	3%
Yes, for warehouse and logistics	3%
No, there are no systems and/or tools in place	69%
No, it is too expensive	8%
No, it cannot be trusted	13%
Other**	7%

Note: Totals might not add to 100% because of multiple choice responses.

** Other includes: "We want customer contact ..it is important!!!;

"Not currently using, but plan to. Don't know which applications will be the best value yet."

Business Ownership	Percent
Minority-owned	4%
Veteran-owned	7%
Women-owned	11%
Prefer not to answer	15%
None of the above	67%

Note: Totals might not add to 100% because of multiple choice responses.

Selected Manufacturing Comments

Respondents were asked to provide additional comments. Selected comments are provided below *verbatim* by category:

Inflation

"Increasing inflation and increasing local and federal taxes are really putting pressure on consumer spending."

"Delays in reacting to "transitory inflation" required tight monetary policy that is now hampering economic growth."

Labor force shortages and benefits cost

"I would like to know where all the able-bodied workers went to. Being a small business, we can't get anyone to

Notes:

Based on responses from 252 Minnesota manufacturing firms, for a response rate of 25.2%. The sampling error is plus or minus 5.3% at a 95% confidence level. Prepared by the Economic Analysis Unit, Minnesota Department of Employment and Economic Development, January 2024.

fill vacancies because they either expect a much higher wage or don't want to work full time."

"We need bodies .. fix immigration process for those here and coming!"

Decline in number of orders

"Orders in Q4 are off 25%. Q1 for 2024 looks bleak. We plan to hold on onto our staff even with lower orders in hopes of Q3 (2023) recovery. Will not be spending on anything extra (capital, maintenance) unless absolutely essential."