



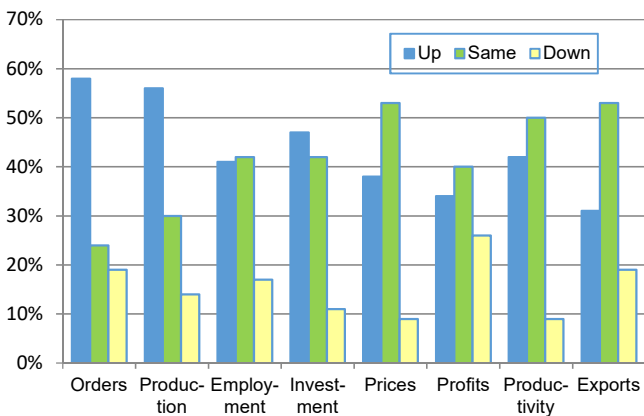
Minnesota Manufacturers Anticipate Continued Expansion for 2018

A random sample survey of Minnesota manufacturers conducted in November by the Minnesota Department of Employment and Economic Development and the Federal Reserve Bank of Minneapolis reports that most Minnesota manufacturers expect conditions in 2018 to improve from 2017. Sixty-two percent anticipate increased number of orders while 56 percent expect increased production levels.

The Manufacturing Industry in 2017

Minnesota manufacturers reported improved or unchanged conditions in 2017 compared to 2016. Fifty-eight percent of manufacturers reported increased number of orders. Fifty-six percent reported larger production levels and 47 percent increased investment in plant and equipment. Additionally, 42 percent indicated increased productivity. However, only 34 percent experienced increased profits while 40 percent reported unchanged levels. The diffusion index for this indicator was 54, higher than 50, indicating expansion but the lowest diffusion index among all indices for economic indicators in 2017.

Economic Performance for Minnesota's Manufacturing Industry -- 2017, Compared to 2016

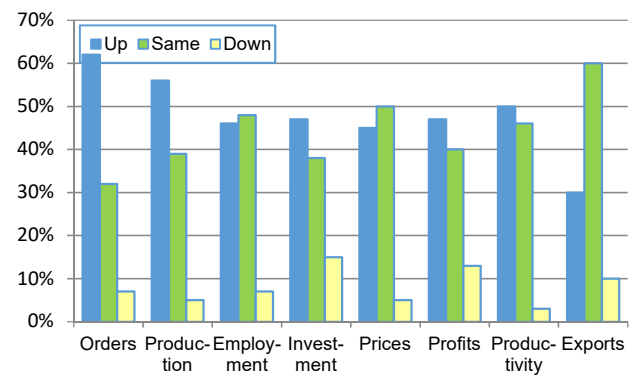


Outlook on the Manufacturing Industry

Manufacturers expect improved or unchanged conditions for the coming year. Sixty-two percent of respondents expect increased number of orders while 56 percent anticipate higher production levels. Additionally, 50 percent of respondents predict increased productivity.

Manufacturers are also optimistic about investment in plant and equipment with 47 percent anticipating growth. Forty-six percent of respondents expect higher employment levels while 48 percent anticipate constant number of jobs. In general, diffusion indices are higher than they were the year before, clearly suggesting expansion.

Outlook on Economic Performance for Minnesota's Manufacturing Industry -- 2018, Compared to 2017



Outlook on the State Economy

Manufacturers expect mostly improved or constant conditions for next year. Fifty-two percent expect increased economic growth while 48 percent expect higher employment. Fifty-one percent anticipate constant business investment. Nonetheless, 61 percent expect increased inflation.

A special question inquired about automation during last year. Forty-five percent of respondents indicated they had increased automation to augment productivity, 29 percent to reduce labor cost, mitigate

labor shortages and improve product quality and 25 percent to improve work safety. Nonetheless, 39 percent reported no increased automation.

Minnesota 2017 Manufacturing Business Condition Survey Results¹

Business indicators in 2017, compared to 2016:	Up	Same	Down	Diffusion Index 2017⁽²⁾	Diffusion Index 2016⁽²⁾
Number of orders	58%	24%	19%	69	49
Product/service production level	56%	30%	14%	71	51
Employment level	41%	42%	17%	62	52
Investment in plant/equipment	47%	42%	11%	68	54
Prices	38%	53%	9%	65	54
Profits	34%	40%	26%	54	39
Productivity	42%	50%	9%	67	56
Exports	31%	53%	16%	57	51

Labor indicators in 2017, compared to 2016:	Decrease	0%	1-2%	3-5%	6-9%	>10%
Wages per worker	1%	10%	28%	53%	3%	5%
Benefits per worker	3%	25%	26%	26%	10%	10%

Expected business indicators in 2018, compared to 2017:	Up	Same	Down	Diffusion Index 2017⁽²⁾	Diffusion Index 2016⁽²⁾
Number of orders	62%	32%	7%	77	67
Product/service production level	56%	39%	5%	75	68
Employment level	46%	48%	7%	70	61
Investment in plant/equipment	47%	38%	15%	66	59
Prices	45%	50%	5%	70	64
Profits	47%	40%	13%	67	58
Productivity	50%	46%	3%	74	69
Exports	30%	60%	10%	60	57

Expected labor indicators in 2018, compared to 2017:	Decrease	0%	1-2%	3-5%	6-9%	>10%
Wages per worker	0%	10%	31%	56%	3%	1%
Benefits per worker	1%	27%	30%	25%	9%	7%

Expected outlook on the following state economic indicators during the next year:	Up	Same	Down	Diffusion Index 2016⁽²⁾	Diffusion Index 2015⁽²⁾
Business Inv.	42%	51%	8%	67	57
Employment	48%	46%	6%	71	59
Consumer spending	47%	45%	8%	70	56
Inflation	61%	37%	2%	79	79
Economic growth	52%	43%	5%	74	62
Corp. profits	44%	45%	11%	66	56

Indicate if automation in your company has increased over the last year due to:	Percentage
Increased productivity	45%
Reduce labor cost	29%
Mitigate labor shortages	29%
Improve product quality	29%
Improve work safety	25%
Other	4%
No increase in automation	39%

(1) Based on responses from 269 Minnesota manufacturing businesses, for a response rate of 26.9 percent. The sampling error is plus or minus 5.9 percentage points at the 95 percent confidence level. Percentages may not add to 100 percent due to rounding.

(2) A diffusion index great than 50 indicates expansion, less than 50 indicates contraction.

Created by Magda Olson. EAU, Policy Office, MN Dept. of Employment and Economic Development. December 2017.