

# **Wisconsin Next Generation Manufacturing Survey Data Report**

Prepared by the Manufacturing Performance Institute

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## **Disclaimer**

This publication was prepared by the MPI Group for the Wisconsin Manufacturing Extension Partnership. The statements, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the view of the Economic Development Administration.

## Introduction

The Wisconsin Next Generation Manufacturing Survey was developed in order to identify and measure key performance and best practice strategies among Wisconsin's manufacturers. Wisconsin's manufacturing base –and its supporting firms and infrastructure – must change dramatically to remain competitive in a global marketplace. The Wisconsin Next Generation Manufacturing Survey provides a framework for understanding Next Generation Manufacturing (NGM) by identifying the competitive performances and best management practices required to achieve world-class manufacturing status in the 21<sup>st</sup> Century.

The Wisconsin Next Generation Manufacturing Survey was conducted by The Manufacturing Performance Institute, an independent national research firm, for the Wisconsin Manufacturing Extension Partnership (WMEP) and its partners: Milwaukee 7, the Wisconsin Department of Commerce, and Wisconsin Manufacturing & Commerce.

This *Wisconsin Next Generation Manufacturing Survey Data Report* presents the overall findings from the survey as well as cross-tabulations of the survey data by:

- Annual sales
- Number of full-time employees (FTEs).

Data generally appears in the same sequence as questions were presented to survey respondents. Questions proceed through eight categories:

- Profile
- Customer-Focused Innovation
- Engaged People/Human Capital Acquisition, Development and Retention
- Superior Processes/Improvement Focus
- Supply-Chain Management and Collaboration
- Green/Sustainability
- Global Engagement
- Going Forward.

Questions and answer categories generally are presented in the same wording and format as they appeared on the survey questionnaire. Responses to survey questions presented in this report consist of two types: Directive single-answer questions for which respondents were asked to “check one” answer category and open-ended questions for which respondents were asked to report a numeric answer. For each of the six functional categories (e.g., Customer-Focused Innovation), respondents were also asked to briefly write in answers regarding best practices; those write-in responses do not appear in this report.

The tables in this report for directive questions are presented in the same format as on the survey. Data for directive questions list the frequency ( $N$ ) and percentage for each answer category (see *Glossary* for definitions of percentage and other terms). Answer categories that were not selected by any respondents have been incorporated into the tables as having a frequency of 0. The tables for open-ended questions are presented with frequency ( $N$ ), median, average, 75<sup>th</sup> percentile and 25<sup>th</sup> percentile statistics. The Manufacturing Performance Institute believes it is best to focus on and report the *median* figure (or median with average). Unlike arithmetical averages or means,

the median is the “typical response” and is not distorted by a few unusually high or low values that may exist in the sample due to special circumstances.

## Reading the Tables

Data should be read down the columns. For example for the table below, of the 168 Wisconsin firms with 26 to 75 full-time employees that answered this particular question, 25% have less than 1% of their workforce dedicated to new product development, 51.2% have 1-5% dedicated, 13.1% have 6-10% dedicated, and 10.7% have more than 10% dedicated.

What percentage of your workforce is dedicated to new product development/R&D?	Number of FTEs			
	1 to 25	26 to 75	76 to 150	More than 150
(N)	113	168	98	142
>1%	24.8%	25.0%	23.5%	16.0%
1-5%	29.2%	51.2%	56.1%	55.6%
6-10%	15.9%	13.1%	12.2%	22.2%
More than 10%	30.1%	10.7%	8.2%	6.3%

## Methodology

The *Wisconsin Next Generation Manufacturing Survey* was conducted using an online questionnaire. Respondents also had access to a PDF version of the survey that they could complete and mail back as a hard copy. There were 531 total respondents, with surveys received September and October 2008. Responses were received by the Manufacturing Performance Institute (MPI), and then entered into a database, edited, and cleansed to ensure answers were plausible, where necessary.

All respondent answers to the survey are confidential. As incentives, respondents who provided contact information along with their specific responses (354 respondents) were offered a copy of a NGM Performance Report, similar to this Data Report, which shows their responses next to answer categories comparable to their own profile. Respondents who wished to remain anonymous could provide contact at a separate website and, as their incentive, they receive a Data Report.

## Glossary

*Frequency (N):* Frequency is the number or count of responses for a question.

*Average:* The average or mean value for answers to open-ended questions (sum of values divided by the number of responses).

*Median:* The midpoint value for open-ended questions — the value above which and below which half the answers fall; equivalent to the 50<sup>th</sup> percentile. The median is frequently the most reliable statistic upon which to base comparisons.

*Percentage:* The percentage of responses for a specific answer category based on all responses for that particular question. (*Note: This is not based on the total number of respondents for the survey*). For cross-tabulated data, the percentage is based on those that responded to *both* the question being analyzed and the cross-tabulation question.

*Percentiles:* The 25<sup>th</sup> percentile is the value below which 25% of answers fall. The 75<sup>th</sup> percentile is the value below which 75% of answers fall.

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

### Annual Sales

All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
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### PROFILE

#### Which of the following describes your organization?

	527	124	144	130	98
(N)					
Company	85.6%	96.0%	92.3%	83.9%	68.7%
Division/unit of a larger company	14.4%	4.0%	7.7%	16.2%	31.3%

#### How many years has your organization been in operation?

	531	126	146	130	98
(N)					
Median	37	21	31	43	55
Average	44	29	39	51	62
75th Percentile	62	40	54	71	98
25th Percentile	20	11	19	30	30

#### What are your approximate annual revenues?

	500	126	146	130	98
(N)					
Median	\$14,000,000	\$2,150,000	\$9,000,000	\$27,500,000	\$122,500,000
Average	\$105,800,946	\$2,268,040	\$9,278,767	\$29,538,462	\$483,877,551
75th Percentile	\$40,000,000	\$3,300,000	\$12,000,000	\$40,000,000	\$200,000,000
25th Percentile	\$4,800,000	\$1,100,000	\$6,000,000	\$20,000,000	\$75,000,000

#### How many full-time employees (and equivalents)?

	527	126	146	130	98
(N)					
Median	68	14	50	125	335
Average	415	18	52	149	1,835
75th Percentile	170	25	66	180	713
25th Percentile	29	8	34	95	228

#### What is the age of your organization's chief executive?

	528	126	145	129	98
(N)					
< 30	0.2%	0.0%	0.0%	0.0%	0.0%
31-40	6.4%	6.4%	4.9%	7.0%	8.1%
41-50	34.7%	37.3%	31.9%	33.3%	35.4%
51-60	39.0%	34.1%	41.0%	39.5%	42.4%
>60	19.7%	22.2%	22.2%	20.2%	14.1%

#### Do you anticipate a planned succession of leadership in the next five years?

	529	125	146	130	98
(N)					
Yes	22.5%	19.2%	19.3%	26.9%	26.3%
Maybe	30.8%	32.8%	31.0%	27.7%	31.3%
No	46.7%	48.0%	49.7%	45.4%	42.4%

### CUSTOMER-FOCUSED INNOVATION

#### Rate the importance of customer-focused innovation to your organization's success over the next five years:

	527	125	145	130	98
(N)					
1=Not important	1.3%	0.8%	2.1%	2.3%	0.0%
2	2.7%	5.6%	0.0%	2.3%	4.0%
3	10.3%	14.4%	10.4%	12.3%	4.0%
4	31.3%	31.2%	34.0%	26.2%	32.3%
5=Highly important	54.5%	48.0%	53.5%	56.9%	59.6%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>Rate your organization's progress toward world-class customer-focused innovation:</b>					
(N)	528	125	145	130	98
1=No progress	3.4%	6.4%	4.2%	3.1%	0.0%
2	16.5%	20.8%	15.3%	17.7%	10.1%
3	36.9%	36.8%	38.2%	42.3%	35.4%
4	33.7%	29.6%	34.0%	26.9%	44.4%
5=World-class	9.5%	6.4%	8.3%	10.0%	10.1%
<b>Input Measures</b>					
<b>What percentage of your workforce is dedicated to new-product development/R&amp;D?</b>					
(N)	525	125	143	130	97
<1%	22.1%	27.2%	24.7%	20.0%	13.3%
1-5%	48.4%	37.6%	47.9%	56.9%	53.1%
6-10%	16.4%	13.6%	14.1%	15.4%	25.5%
>10%	13.1%	21.6%	13.4%	7.7%	8.2%
<b>What percentage of sales is invested into new-product development/R&amp;D?</b>					
(N)	525	123	145	130	98
<1%	25.5%	30.9%	28.5%	25.4%	16.2%
1-5%	47.8%	39.0%	44.4%	54.6%	55.6%
6-10%	15.1%	14.6%	14.6%	13.1%	16.2%
>10%	11.6%	15.5%	12.5%	6.9%	12.1%
<b>What best describes your measurement system for reviewing return from custom-focused innovation?</b>					
(N)	527	126	146	128	98
No measurement system per se or reviews	31.7%	53.2%	31.7%	27.3%	13.1%
Ad hoc monitoring of basic measures and ad hoc reviews	30.7%	23.0%	33.1%	35.9%	35.4%
Company-specific metrics monitored regularly by operations staff	9.9%	8.7%	9.7%	9.4%	11.1%
Regular monitoring and review of company-specific metrics by CEO and senior staff	18.0%	9.5%	15.2%	19.5%	27.3%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	9.7%	5.6%	10.3%	7.8%	13.1%
<b>Output Measures</b>					
<b>How many new products as a percentage of total SKUs are launched annually (count only new SKUs, not a product iteration or line extension)?</b>					
(N)	520	123	142	128	98
<5%	56.5%	69.1%	51.1%	53.9%	50.5%
5-10%	27.1%	15.5%	32.6%	31.3%	32.3%
11-20%	11.4%	6.5%	14.2%	9.4%	17.2%
>20%	5.0%	8.9%	2.1%	5.5%	0.0%
<b>Approximately what percentage of annual sales are derived from products introduced in the past three years?</b>					
(N)	524	122	145	129	98
<5%	26.3%	35.3%	26.4%	20.2%	22.2%
5-25%	47.0%	36.1%	43.1%	55.0%	57.6%
26-50%	19.3%	19.7%	24.3%	18.6%	14.1%
>50%	7.4%	9.0%	6.3%	6.2%	6.1%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

### Annual Sales

All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
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### ENGAGED PEOPLE/HUMAN-CAPITAL ACQUISITION, DEVELOPMENT AND RETENTION

**Rate the importance of human-capital acquisition, development and retention to your organization's success over the next five years:**

		530	126	146	130	98
(N)						
1=Not important	1.3%		3.2%	0.0%	1.5%	0.0%
2	3.2%		5.6%	3.5%	0.8%	2.0%
3	14.0%		18.3%	13.1%	15.4%	12.1%
4	32.1%		33.3%	33.1%	30.8%	32.3%
5=Highly important	49.4%		39.7%	50.3%	51.5%	53.5%

**Rate your organization's progress toward world-class human-capital acquisition, development and retention:**

		526	125	144	129	98
(N)						
1=No progress	7.8%		16.8%	6.3%	7.8%	0.0%
2	23.2%		26.4%	24.5%	20.9%	19.2%
3	40.1%		35.2%	39.9%	41.1%	46.5%
4	23.8%		18.4%	25.2%	24.8%	28.3%
5=World-class	5.1%		3.2%	4.2%	5.4%	6.1%

#### Input Measures

**What percentage of employees regularly participate in empowered work teams (i.e., make decisions without supervisor approval)?**

		529	126	145	130	98
(N)						
<25%	39.9%		39.7%	38.2%	41.5%	35.4%
25-50%	30.3%		26.2%	31.9%	30.0%	33.3%
51-75%	14.9%		15.1%	13.9%	13.1%	20.2%
76-90%	9.6%		11.1%	9.7%	11.5%	7.1%
>90%	5.3%		7.9%	6.3%	3.9%	4.0%

**How many formal training hours are devoted annually to each employee?**

		528	126	144	130	98
(N)						
8 or fewer	29.0%		40.5%	28.7%	26.2%	18.2%
9-20	43.0%		38.1%	44.1%	46.2%	42.4%
21-40	18.4%		10.3%	16.8%	20.0%	29.3%
>40	9.7%		11.1%	10.5%	7.7%	10.1%

**What percentage of employees are dedicated to assessing and upgrading your organization's talent pool?**

		528	125	146	130	97
(N)						
<1%	27.8%		34.4%	20.7%	26.9%	32.7%
1-5%	49.4%		44.0%	50.3%	53.1%	50.0%
6-10%	14.4%		8.8%	19.3%	16.9%	12.2%
>10%	8.3%		12.8%	9.7%	3.1%	5.1%

**What best describes your measurement system for reviewing return from human-capital acquisition, development and retention?**

		527	126	146	128	98
(N)						
No measurement system per se or reviews	28.3%		42.1%	29.0%	25.0%	14.1%
Ad hoc monitoring of basic measures and ad hoc reviews	35.7%		33.3%	32.4%	35.9%	44.4%
Company-specific metrics monitored regularly by operations staff	13.5%		11.1%	13.1%	14.1%	16.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff	18.2%		11.9%	18.6%	21.9%	20.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	4.4%		1.6%	6.9%	3.1%	5.1%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>Output Measures</b>					
<b>What is your value-added per employee ([sales – cost of materials] ÷ number of employees)?</b>					
(N)	508	123	140	128	96
< \$75,000	32.3%	43.1%	32.4%	25.8%	25.8%
\$75,000-\$125,000	39.4%	42.3%	41.7%	43.8%	27.8%
\$125,001-\$175,000	18.1%	10.6%	21.6%	17.2%	23.7%
> \$175,000	10.2%	4.1%	4.3%	13.3%	22.7%

<b>What is your organization's annual labor turnover rate (number of voluntary and involuntary separations ÷ typical staffing level)?</b>					
(N)	520	124	143	128	96
0%	5.2%	18.6%	1.4%	0.0%	0.0%
0.1-1%	17.9%	29.0%	20.4%	7.0%	12.4%
1.1-5%	32.9%	15.3%	41.6%	41.4%	33.0%
5.1-10%	28.1%	21.8%	26.1%	32.8%	35.1%
>10%	16.0%	15.3%	10.6%	18.8%	19.6%

### SUPERIOR PROCESSES/IMPROVEMENT FOCUS

<b>Rate the importance of process improvement to your organization's success over the next five years:</b>					
(N)	530	126	146	130	98
1=Not important	0.8%	2.4%	0.0%	0.8%	0.0%
2	1.9%	4.0%	2.1%	0.8%	0.0%
3	9.8%	13.5%	8.3%	11.5%	6.1%
4	26.4%	24.6%	27.6%	22.3%	30.3%
5=Highly important	61.1%	55.6%	62.1%	64.6%	63.6%

<b>Rate your organization's progress toward world-class processes and process improvement:</b>					
(N)	528	125	146	130	97
1=No progress	3.6%	11.2%	1.4%	1.5%	1.0%
2	16.9%	19.2%	20.0%	14.6%	10.2%
3	37.7%	36.8%	40.0%	46.2%	30.6%
4	34.5%	25.6%	31.7%	33.1%	50.0%
5=World-class	7.4%	7.2%	6.9%	4.6%	8.2%

### Input Measures

<b>What percentage of your workforce has been fully engaged in your organization's specific improvement method/approach?</b>					
(N)	527	125	146	129	98
<26%	32.6%	40.8%	28.3%	31.8%	27.3%
26-50%	22.8%	21.6%	21.4%	25.6%	22.2%
51-75%	18.0%	19.2%	15.9%	16.3%	18.2%
76-99%	17.7%	7.2%	20.7%	20.9%	26.3%
100%	8.9%	11.2%	13.8%	5.4%	6.1%

<b>What is your organization's investment in capital equipment as a percentage of sales (three-year average)?</b>					
(N)	526	126	146	129	97
<1%	7.6%	13.5%	8.3%	1.6%	6.1%
1-5%	51.5%	38.9%	44.1%	62.8%	61.2%
6-10%	25.7%	28.6%	26.2%	25.6%	23.5%
>10%	15.2%	19.1%	21.4%	10.1%	9.2%



## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>What best describes your measurement system for reviewing return from process improvements?</b>					
(N)	524	123	146	129	97
No measurement system per se or reviews	15.3%	33.3%	13.8%	7.0%	5.1%
Ad hoc monitoring of basic measures and ad hoc reviews	28.2%	27.6%	31.0%	32.6%	20.4%
Company-specific metrics monitored regularly by operations staff	21.4%	16.3%	16.6%	26.4%	27.6%
Regular monitoring and review of company-specific metrics by CEO and senior staff	22.7%	17.9%	24.1%	21.7%	27.6%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	12.4%	4.9%	14.5%	12.4%	19.4%

### Output Measures

#### What percentage of deliveries reach customers in perfect order (on time, high quality, to all customer specifications)?

(N)	525	125	146	127	97
<80%	8.6%	7.2%	11.7%	7.9%	6.1%
80-90%	16.0%	12.8%	23.5%	16.5%	11.2%
91-95%	23.6%	24.0%	22.8%	26.0%	22.5%
96-98%	26.5%	25.6%	19.3%	26.8%	34.7%
>98%	25.3%	30.4%	22.8%	22.8%	25.5%

#### Describe your customers' satisfaction with your overall performance?

(N)	524	126	145	129	94
Threatens to pull business because we don't match the competition	1.7%	1.6%	0.7%	0.8%	4.2%
Indifferent to buying our product or competitors	5.2%	7.1%	6.9%	3.1%	3.2%
Preference for our products by virtue of price, quality, and delivery performance	47.1%	43.7%	38.9%	55.8%	52.6%
Strong loyalty to our products due to ongoing trust in our organization's people and capabilities	46.0%	47.6%	53.5%	40.3%	40.0%

#### By what percentage has productivity (i.e., value add) improved over the past three years?

(N)	518	124	145	128	95
<25%	48.1%	52.4%	44.4%	54.7%	43.8%
26-50	33.0%	26.6%	36.1%	27.3%	40.6%
51-75%	12.9%	13.7%	13.9%	11.7%	11.5%
76-99%	5.0%	6.5%	4.9%	4.7%	3.1%
>100%	1.0%	0.8%	0.7%	1.6%	1.0%

## SUPPLY-CHAIN MANAGEMENT & COLLABORATION

#### Rate the importance of supply-chain management and collaboration to your organization's success over the next five years:

(N)	527	125	146	130	97
1=Not important	4.7%	7.2%	4.1%	3.9%	4.1%
2	8.5%	15.2%	7.6%	6.9%	5.1%
3	19.9%	15.2%	26.9%	18.5%	15.3%
4	31.3%	29.6%	26.2%	39.2%	32.7%
5=Highly important	35.5%	32.8%	35.2%	31.5%	42.9%

#### Rate your organization's progress toward world-class supply-chain management and collaboration:

(N)	524	124	145	129	97
1=No progress	9.4%	16.1%	7.6%	8.5%	5.1%
2	25.6%	26.6%	26.4%	27.1%	22.5%
3	40.3%	33.1%	45.1%	43.4%	37.8%
4	21.8%	20.2%	19.4%	20.2%	30.6%
5=World-class	3.1%	4.0%	1.4%	0.8%	4.1%

**2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY**

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>Input Measures</b>					
<b>What percentage of your workforce is dedicated to supply-chain and partner development, management, and collaboration?</b>					
(N)	523	124	144	129	98
<1%	26.2%	33.1%	21.0%	30.2%	19.2%
1-5%	51.8%	35.5%	60.1%	52.7%	61.6%
6-10%	15.5%	17.7%	13.3%	14.7%	15.2%
>10%	6.5%	13.7%	5.6%	2.3%	4.0%
<b>What is your organization's investment in information technologies (hardware and software) as a percentage of sales (three-year average)?</b>					
(N)	528	126	145	130	98
<1%	30.7%	33.3%	27.1%	34.6%	24.2%
1-5%	49.4%	47.6%	49.3%	48.5%	57.6%
6-10%	13.1%	11.1%	14.6%	11.5%	14.1%
>10%	6.8%	7.9%	9.0%	5.4%	4.0%
<b>What best describes your measurement system for reviewing return from supply-chain management and collaboration?</b>					
(N)	525	125	145	128	98
No measurement system per se or reviews	28.6%	50.4%	30.6%	21.1%	10.1%
Ad hoc monitoring of basic measures and ad hoc reviews	32.8%	26.4%	30.6%	42.2%	36.4%
Company-specific metrics monitored regularly by operations staff	18.3%	8.8%	16.7%	23.4%	22.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff	14.7%	13.6%	15.3%	9.4%	19.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	5.7%	0.8%	6.9%	3.9%	12.1%
<b>Output Measures</b>					
<b>By approximately what percentage has total value of inventory throughout the supply chain for your primary product (furthest supplier to end customer) been reduced over the last three years?</b>					
(N)	517	123	142	129	97
<10%	58.6%	61.8%	61.0%	57.4%	56.1%
10-25%	30.0%	26.8%	27.0%	31.0%	33.7%
26-50%	9.5%	9.8%	9.9%	9.3%	8.2%
>50%	1.9%	1.6%	2.1%	2.3%	2.0%
<b>How is your supply chain a competitive advantage in terms of flexibility and speed to the marketplace?</b>					
(N)	508	118	138	128	96
Suppliers regularly measured on cost, quality, and delivery performance	35.8%	42.4%	36.5%	43.8%	17.5%
Suppliers regularly measured on cost, quality, and delivery performance as well as total acquisition cost	10.4%	10.2%	7.3%	14.1%	11.3%
Suppliers regularly measured on cost, quality, and delivery performance as well as total acquisition cost and "soft" qualities (e.g., trust, flexibility)	31.5%	28.0%	29.9%	29.7%	43.3%
Strategic suppliers and customers are active participants in our operations, continuous improvement, and product development efforts	17.5%	16.1%	20.4%	8.6%	23.7%
Strategic suppliers and customers are active participants in our operations, continuous improvement, and product development efforts and participate fully in strategic planning and identifying and responding to new markets	4.7%	3.4%	5.8%	3.9%	4.1%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

### Annual Sales

All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
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### GREEN/SUSTAINABILITY

**Rate the importance of Green/Sustainability to your organization's success over the next five years:**

	528	126	146	130	97
(N)					
1=Not important	15.7%	22.2%	13.8%	16.9%	9.2%
2	21.6%	21.4%	26.2%	17.7%	21.4%
3	29.9%	31.0%	28.3%	33.1%	28.6%
4	21.2%	15.9%	19.3%	23.9%	25.5%
5=Highly important	11.6%	9.5%	12.4%	8.5%	15.3%

**Rate your organization's progress toward world-class Green/Sustainability:**

	526	124	146	130	97
(N)					
1=No progress	21.7%	34.7%	20.7%	21.5%	9.2%
2	33.7%	26.6%	32.4%	44.6%	32.7%
3	27.6%	26.6%	29.0%	21.5%	32.7%
4	14.8%	12.1%	15.9%	11.5%	18.4%
5=World-class	2.3%	0.0%	2.1%	0.8%	7.1%

**Input Measures**

**What percentage of your workforce is dedicated to reducing energy, material, or emissions in your operations?**

	522	125	143	128	97
(N)					
<1%	49.4%	48.0%	38.0%	60.9%	54.1%
1-5%	35.3%	29.6%	44.4%	32.8%	33.7%
6-10%	7.5%	11.2%	9.9%	3.1%	6.1%
>10%	7.9%	11.2%	7.8%	3.1%	6.1%

**What percentage of the workforce is dedicated to Green products (product and packaging impact, green products and markets)?**

	521	125	144	129	95
(N)					
<1%	58.9%	56.8%	49.7%	71.3%	59.4%
1-5%	28.4%	26.4%	33.6%	24.8%	27.1%
6-10%	6.0%	8.0%	8.4%	2.3%	5.2%
>10%	6.7%	8.8%	8.4%	1.6%	8.3%

**What best describes your measurement system for reviewing return from Green/Sustainability efforts?**

	525	126	145	128	97
(N)					
No measurement system per se or reviews	61.3%	68.3%	63.2%	68.8%	44.9%
Ad hoc monitoring of basic measures and ad hoc reviews	20.0%	14.3%	22.2%	20.3%	23.5%
Company-specific metrics monitored regularly by operations staff	7.8%	4.8%	5.6%	8.6%	10.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff	8.8%	11.1%	6.9%	1.6%	17.4%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	2.1%	1.6%	2.1%	0.8%	4.1%

**Output Measures**

**What is your annual reduction in energy per unit of product output?**

	515	126	141	125	96
(N)					
<10%	84.7%	83.3%	84.3%	84.8%	86.6%
10-25%	13.8%	13.5%	14.3%	14.4%	12.4%
26-50%	1.4%	2.4%	1.4%	0.8%	1.0%
>50%	0.2%	0.8%	0.0%	0.0%	0.0%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>What is your annual reduction in usage of non-recycled material per unit of product output?</b>					
(N)	514	124	141	125	97
<10%	80.0%	79.8%	80.0%	88.0%	70.4%
10-25%	16.0%	15.3%	15.7%	8.0%	25.5%
26-50%	3.1%	3.2%	3.6%	3.2%	3.1%
>50%	1.0%	1.6%	0.7%	0.8%	1.0%
<b>What percentage of your products (by sales volume) are completely recyclable/reusable?</b>					
(N)	512	126	141	123	97
<50%	55.7%	53.2%	50.7%	57.7%	61.2%
51-75%	10.7%	9.5%	12.9%	10.6%	10.2%
76-89%	8.2%	10.3%	8.6%	6.5%	8.2%
90-99%	16.6%	22.2%	17.1%	15.5%	9.2%
100%	8.8%	4.8%	10.7%	9.8%	11.2%

### GLOBAL ENGAGEMENT

**Rate the importance of global engagement to your organization's success over the next five years:**

(N)	526	124	144	130	98
1=Not important	19.6%	30.7%	17.5%	18.5%	11.1%
2	20.9%	21.8%	23.1%	23.9%	13.1%
3	20.2%	23.4%	21.0%	17.7%	19.2%
4	18.3%	11.3%	18.2%	18.5%	23.2%
5=Highly important	21.1%	12.9%	20.3%	21.5%	33.3%

**Rate your organization's progress toward becoming a world-class global player:**

(N)	524	123	145	129	97
1=No progress	29.0%	45.5%	25.7%	28.7%	15.3%
2	31.3%	28.5%	34.7%	33.3%	27.6%
3	18.5%	14.6%	18.1%	20.2%	18.4%
4	16.8%	9.8%	19.4%	14.7%	27.6%
5=World-class	4.4%	1.6%	2.1%	3.1%	11.2%

### Input Measures

**What percentage of your total direct workforce is located overseas and/or located domestically and responsible for global business activities?**

(N)	528	124	146	130	98
0%	58.3%	75.8%	64.8%	56.2%	27.3%
1-25%	36.0%	21.0%	33.8%	37.7%	58.6%
26-50%	3.6%	2.4%	0.7%	5.4%	8.1%
>50%	2.1%	0.8%	0.7%	0.8%	6.1%

**What best describes your measurement system for reviewing return from global engagement?**

(N)	520	124	142	127	98
No measurement system per se or reviews	59.8%	76.6%	62.4%	59.8%	35.4%
Ad hoc monitoring of basic measures and ad hoc reviews	16.5%	12.1%	18.4%	17.3%	20.2%
Company-specific metrics monitored regularly by operations staff	7.9%	5.7%	8.5%	5.5%	12.1%
Regular monitoring and review of company-specific metrics by CEO and senior staff	13.1%	4.8%	7.8%	15.8%	27.3%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	2.7%	0.8%	2.8%	1.6%	5.1%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>Output Measures</b>					
<b>By what percentage has dollar volume of sales outside the United States changed over the past three years?</b>					
(N)	518	123	143	128	97
<25%	77.0%	85.4%	74.7%	76.6%	70.4%
26-50%	15.8%	9.8%	18.3%	18.0%	18.4%
51-100%	4.1%	1.6%	4.2%	3.1%	6.1%
>100%	3.1%	3.3%	2.8%	2.3%	5.1%
<b>In how many countries outside of the United States does your organization operate or partner in production facilities?</b>					
(N)	520	123	143	127	98
0	67.3%	81.3%	68.3%	70.9%	42.4%
1-5	23.9%	14.6%	23.9%	23.6%	37.4%
6-10	3.7%	1.6%	4.9%	1.6%	7.1%
>10	5.2%	2.4%	2.8%	3.9%	13.1%
<b>In how many countries outside of the United States does your organization have sales and/or distribution facilities?</b>					
(N)	520	122	142	129	98
0	62.9%	82.8%	70.2%	63.6%	29.3%
1-5	23.7%	15.6%	20.6%	23.3%	37.4%
6-10	4.8%	0.8%	5.7%	3.9%	9.1%
>10	8.7%	0.8%	3.6%	9.3%	24.2%
<b>GOING FORWARD</b>					
<b>To what extent does your geographic region in Wisconsin have the support services, peer groups, training opportunities and resources available to support the following?</b>					
<b>Customer-focused innovation</b>					
(N)	526	124	145	129	98
1=No support	10.3%	13.7%	11.8%	10.9%	4.0%
2	20.9%	24.2%	22.9%	15.5%	23.2%
3	32.7%	31.5%	27.8%	34.9%	35.4%
4	26.1%	22.6%	27.1%	29.5%	27.3%
5=Full support	10.1%	8.1%	10.4%	9.3%	10.1%
<b>Engaged people/Human-capital acquisition, development and retention</b>					
(N)	524	123	145	129	98
1=No support	6.5%	8.9%	7.6%	6.2%	2.0%
2	23.5%	26.8%	21.5%	23.3%	18.2%
3	31.7%	29.3%	34.0%	28.7%	37.4%
4	29.4%	26.8%	25.7%	34.9%	35.4%
5=Full support	9.0%	8.1%	11.1%	7.0%	7.1%
<b>Superior processes/Improvement focus</b>					
(N)	522	123	143	129	98
1=No support	6.7%	13.0%	4.9%	7.8%	2.0%
2	17.2%	20.3%	23.2%	11.6%	11.1%
3	28.9%	30.1%	26.8%	29.5%	28.3%
4	33.3%	28.5%	28.9%	38.0%	42.4%
5=Full support	13.8%	8.1%	16.2%	13.2%	16.2%
<b>Supply-chain management and collaboration</b>					
(N)	523	123	144	129	98
1=No support	8.0%	11.4%	9.1%	5.4%	5.1%
2	23.1%	26.0%	25.9%	19.4%	21.2%
3	34.4%	32.5%	32.9%	37.2%	33.3%
4	27.0%	24.4%	22.4%	31.8%	33.3%
5=Full support	7.5%	5.7%	9.8%	6.2%	7.1%

2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Annual Sales				
	All Firms	Less than \$5 million	\$5 million to \$15 million	\$15 million to \$50 million	More than \$50 million
<b>Green/Sustainability</b>					
(N)	522	123	144	128	98
1=No support	16.5%	20.3%	18.9%	14.8%	11.1%
2	29.1%	30.1%	30.1%	28.9%	29.3%
3	33.0%	27.6%	28.7%	35.9%	38.4%
4	14.8%	16.3%	14.0%	14.8%	13.1%
5=Full support	6.7%	5.7%	8.4%	5.5%	8.1%
<b>Global engagement</b>					
(N)	517	124	141	127	97
1=No support	20.7%	28.2%	22.1%	19.7%	12.2%
2	31.9%	30.7%	32.1%	27.6%	33.7%
3	30.4%	25.0%	29.3%	36.2%	33.7%
4	11.6%	12.1%	9.3%	13.4%	12.2%
5=Full support	5.4%	4.0%	7.1%	3.2%	8.2%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>PROFILE</b>					
<b>Which of the following describes your organization?</b>					
(N)	527	115	168	97	143
Company	85.6%	93.9%	89.9%	83.5%	75.9%
Division/unit of a larger company	14.4%	6.1%	10.1%	16.5%	24.1%
<b>How many years has your organization been in operation?</b>					
(N)	531	117	169	98	143
Median	37	21	28	43	53
Average	44	30	38	48	61
75th Percentile	62	45	52	66	90
25th Percentile	20	11	16	28	32
<b>What are your approximate annual revenues?</b>					
(N)	500	110	163	95	132
Median	\$14,000,000	\$2,000,000	\$8,000,000	\$21,000,000	\$80,000,000
Average	\$105,800,946	\$2,862,482	\$13,354,601	\$30,392,632	\$360,011,364
75th Percentile	\$40,000,000	\$3,500,000	\$13,000,000	\$34,000,000	\$173,750,000
25th Percentile	\$4,800,000	\$1,000,000	\$5,000,000	\$15,000,000	\$40,000,000
<b>How many full-time employees (and equivalents)?</b>					
(N)	527	117	169	98	143
Median	68	12	46	105	300
Average	415	13	47	109	1,387
75th Percentile	170	18	60	125	600
25th Percentile	29	8	34	95	200
<b>What is the age of your organization's chief executive?</b>					
(N)	528	117	168	97	143
< 30	0.2%	0.0%	0.0%	0.0%	0.7%
31-40	6.4%	6.0%	5.4%	7.2%	7.6%
41-50	34.7%	35.9%	36.3%	35.1%	31.0%
51-60	39.0%	35.9%	38.1%	36.1%	44.8%
>60	19.7%	22.2%	20.2%	21.7%	15.9%
<b>Do you anticipate a planned succession of leadership in the next five years?</b>					
(N)	529	115	169	98	143
Yes	22.5%	19.1%	19.5%	31.6%	22.1%
Maybe	30.8%	28.7%	34.9%	26.5%	30.3%
No	46.7%	52.2%	45.6%	41.8%	47.6%

## CUSTOMER-FOCUSED INNOVATION

**Rate the importance of customer-focused innovation to your organization's success over the next five years:**

	527	115	168	97	143
(N)					
1=Not important	1.3%	0.9%	2.4%	2.1%	0.0%
2	2.7%	6.1%	1.2%	1.0%	2.8%
3	10.3%	15.7%	8.9%	8.3%	9.0%
4	31.3%	25.2%	35.7%	24.7%	35.2%
5=Highly important	54.5%	52.2%	51.8%	63.9%	53.1%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>Rate your organization's progress toward world-class customer-focused innovation:</b>					
(N)	528	116	167	98	143
1=No progress	3.4%	6.0%	5.4%	2.0%	0.0%
2	16.5%	19.8%	16.8%	16.3%	13.8%
3	36.9%	30.2%	40.7%	38.8%	37.2%
4	33.7%	33.6%	30.5%	33.7%	37.9%
5=World-class	9.5%	10.3%	6.6%	9.2%	11.0%
<b>Input Measures</b>					
<b>What percentage of your workforce is dedicated to new-product development/R&amp;D?</b>					
(N)	525	113	168	98	142
<1%	22.1%	24.8%	25.0%	23.5%	16.0%
1-5%	48.4%	29.2%	51.2%	56.1%	55.6%
6-10%	16.4%	15.9%	13.1%	12.2%	22.2%
>10%	13.1%	30.1%	10.7%	8.2%	6.3%
<b>What percentage of sales is invested into new-product development/R&amp;D?</b>					
(N)	525	114	167	98	142
<1%	25.5%	29.0%	29.9%	26.5%	17.4%
1-5%	47.8%	35.1%	46.1%	51.0%	57.6%
6-10%	15.1%	17.5%	13.2%	14.3%	15.3%
>10%	11.6%	18.4%	10.8%	8.2%	9.7%
<b>What best describes your measurement system for reviewing return from custom-focused innovation?</b>					
(N)	527	116	169	96	143
No measurement system per se or reviews	31.7%	49.1%	34.3%	22.9%	20.7%
Ad hoc monitoring of basic measures and ad hoc reviews	30.7%	25.9%	29.6%	36.5%	32.4%
Company-specific metrics monitored regularly by operations staff	9.9%	8.6%	9.5%	11.5%	10.3%
Regular monitoring and review of company-specific metrics by CEO and senior staff	18.0%	10.3%	17.2%	16.7%	26.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	9.7%	6.0%	9.5%	12.5%	10.3%
<b>Output Measures</b>					
<b>How many new products as a percentage of total SKUs are launched annually (count only new SKUs, not a product iteration or line extension)?</b>					
(N)	520	115	164	96	142
<5%	56.5%	62.6%	59.8%	55.2%	49.3%
5-10%	27.1%	20.0%	26.2%	31.3%	31.3%
11-20%	11.4%	8.7%	11.0%	9.4%	15.3%
>20%	5.0%	8.7%	3.1%	4.2%	4.2%
<b>Approximately what percentage of annual sales are derived from products introduced in the past three years?</b>					
(N)	524	113	167	97	143
<5%	26.3%	34.5%	28.7%	25.8%	17.9%
5-25%	47.0%	35.4%	44.3%	48.5%	57.9%
26-50%	19.3%	19.5%	21.6%	20.6%	15.9%
>50%	7.4%	10.6%	5.4%	5.2%	8.3%



2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

All Firms	Number of FTEs			
	1 to 25	26 to 75	76 to 150	More than 150

**ENGAGED PEOPLE/HUMAN-CAPITAL ACQUISITION, DEVELOPMENT AND RETENTION**

Rate the importance of human-capital acquisition, development and retention to your organization's success over the next five years:

(N)	530	116	169	98	143
1=Not important	1.3%	4.3%	0.6%	0.0%	0.7%
2	3.2%	6.0%	4.1%	0.0%	2.1%
3	14.0%	18.1%	13.0%	16.3%	10.3%
4	32.1%	31.0%	31.4%	31.6%	34.5%
5=Highly important	49.4%	40.5%	50.9%	52.0%	52.4%

Rate your organization's progress toward world-class human-capital acquisition, development and retention:

(N)	526	115	167	97	143
1=No progress	7.8%	15.7%	8.4%	5.2%	2.8%
2	23.2%	27.0%	24.6%	26.8%	16.6%
3	40.1%	31.3%	40.1%	38.1%	49.0%
4	23.8%	20.9%	22.2%	25.8%	26.2%
5=World-class	5.1%	5.2%	4.8%	4.1%	5.5%

**Input Measures**

What percentage of employees regularly participate in empowered work teams (i.e., make decisions without supervisor approval)?

(N)	529	116	168	98	143
<25%	39.9%	36.2%	42.3%	41.8%	39.3%
25-50%	30.3%	27.6%	28.6%	29.6%	34.5%
51-75%	14.9%	13.8%	14.9%	15.3%	15.2%
76-90%	9.6%	13.8%	8.3%	11.2%	6.9%
>90%	5.3%	8.6%	6.0%	2.0%	4.1%

How many formal training hours are devoted annually to each employee?

(N)	528	115	168	98	143
8 or fewer	29.0%	39.1%	30.4%	22.5%	24.1%
9-20	43.0%	37.4%	40.5%	58.2%	40.0%
21-40	18.4%	11.3%	18.5%	15.3%	25.5%
>40	9.7%	12.2%	10.7%	4.1%	10.3%

What percentage of employees are dedicated to assessing and upgrading your organization's talent pool?

(N)	528	115	169	98	142
<1%	27.8%	32.2%	24.9%	20.4%	33.3%
1-5%	49.4%	40.9%	49.1%	59.2%	50.0%
6-10%	14.4%	9.6%	17.8%	16.3%	13.2%
>10%	8.3%	17.4%	8.3%	4.1%	3.5%

What best describes your measurement system for reviewing return from human-capital acquisition, development and retention?

(N)	527	116	169	96	143
No measurement system per se or reviews	28.3%	47.4%	24.9%	21.9%	21.4%
Ad hoc monitoring of basic measures and ad hoc reviews	35.7%	31.9%	34.3%	34.4%	41.4%
Company-specific metrics monitored regularly by operations staff	13.5%	7.8%	12.4%	19.8%	15.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff	18.2%	10.3%	22.5%	18.8%	19.3%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	4.4%	2.6%	5.9%	5.2%	2.8%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>Output Measures</b>					
<b>What is your value-added per employee ([sales – cost of materials] ÷ number of employees)?</b>					
(N)	508	114	159	96	136
< \$75,000	32.3%	39.5%	31.5%	31.3%	28.3%
\$75,000-\$125,000	39.4%	38.6%	42.8%	39.6%	36.2%
\$125,001-\$175,000	18.1%	14.9%	20.8%	17.7%	18.1%
> \$175,000	10.2%	7.0%	5.0%	11.5%	17.4%
<b>What is your organization's annual labor turnover rate (number of voluntary and involuntary separations ÷ typical staffing level)?</b>					
(N)	520	116	164	97	140
0%	5.2%	21.6%	1.2%	0.0%	0.0%
0.1-1%	17.9%	29.3%	22.0%	6.2%	11.3%
1.1-5%	32.9%	18.1%	36.6%	44.3%	33.1%
5.1-10%	28.1%	21.6%	24.4%	36.1%	32.4%
>10%	16.0%	9.5%	15.9%	13.4%	23.2%
<b>SUPERIOR PROCESSES/IMPROVEMENT FOCUS</b>					
<b>Rate the importance of process improvement to your organization's success over the next five years:</b>					
(N)	530	116	169	98	143
1=Not important	0.8%	2.6%	0.6%	0.0%	0.0%
2	1.9%	6.0%	0.6%	1.0%	0.7%
3	9.8%	15.5%	10.1%	4.1%	9.0%
4	26.4%	25.0%	26.6%	25.5%	28.3%
5=Highly important	61.1%	50.9%	62.1%	69.4%	62.1%
<b>Rate your organization's progress toward world-class processes and process improvement:</b>					
(N)	528	115	169	98	142
1=No progress	3.6%	12.2%	2.4%	0.0%	0.7%
2	16.9%	17.4%	20.7%	14.3%	13.9%
3	37.7%	31.3%	42.0%	41.8%	35.4%
4	34.5%	28.7%	29.0%	38.8%	42.4%
5=World-class	7.4%	10.4%	5.9%	5.1%	7.6%
<b>Input Measures</b>					
<b>What percentage of your workforce has been fully engaged in your organization's specific improvement method/approach?</b>					
(N)	527	116	167	98	143
<26%	32.6%	39.7%	28.1%	31.6%	33.1%
26-50%	22.8%	19.8%	22.8%	24.5%	24.1%
51-75%	18.0%	16.4%	19.2%	18.4%	17.2%
76-99%	17.7%	10.3%	18.6%	21.4%	20.0%
100%	8.9%	13.8%	11.4%	4.1%	5.5%
<b>What is your organization's investment in capital equipment as a percentage of sales (three-year average)?</b>					
(N)	526	116	168	97	142
<1%	7.6%	14.7%	6.6%	4.1%	5.6%
1-5%	51.5%	42.2%	48.8%	59.8%	56.3%
6-10%	25.7%	25.0%	24.4%	23.7%	29.2%
>10%	15.2%	18.1%	20.2%	12.4%	9.0%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>What best describes your measurement system for reviewing return from process improvements?</b>					
(N)	524	115	167	97	142
No measurement system per se or reviews	15.3%	37.4%	13.2%	8.3%	4.9%
Ad hoc monitoring of basic measures and ad hoc reviews	28.2%	26.1%	32.9%	27.8%	25.0%
Company-specific metrics monitored regularly by operations staff	21.4%	12.2%	17.4%	25.8%	30.6%
Regular monitoring and review of company-specific metrics by CEO and senior staff	22.7%	20.0%	22.8%	24.7%	23.6%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	12.4%	4.4%	13.8%	13.4%	16.0%
<b>Output Measures</b>					
<b>What percentage of deliveries reach customers in perfect order (on time, high quality, to all customer specifications)?</b>					
(N)	525	115	168	96	142
<80%	8.6%	7.0%	9.5%	10.4%	6.9%
80-90%	16.0%	12.2%	19.1%	20.8%	12.5%
91-95%	23.6%	26.1%	23.2%	18.8%	25.7%
96-98%	26.5%	25.2%	23.2%	28.1%	29.9%
>98%	25.3%	29.6%	25.0%	21.9%	25.0%
<b>Describe your customers' satisfaction with your overall performance?</b>					
(N)	524	116	167	98	139
Threatens to pull business because we don't match the competition	1.7%	0.9%	1.2%	3.1%	2.1%
Indifferent to buying our product or competitors	5.2%	6.0%	7.2%	4.1%	2.8%
Preference for our products by virtue of price, quality, and delivery performance	47.1%	37.1%	41.3%	55.1%	56.0%
Strong loyalty to our products due to ongoing trust in our organization's people and capabilities	46.0%	56.0%	50.3%	37.8%	39.0%
<b>By what percentage has productivity (i.e., value add) improved over the past three years?</b>					
(N)	518	113	166	97	139
<25%	48.1%	47.8%	47.6%	44.3%	51.8%
26-50	33.0%	31.0%	31.9%	35.1%	34.0%
51-75%	12.9%	13.3%	15.1%	13.4%	9.9%
76-99%	5.0%	7.1%	4.2%	5.2%	4.3%
>100%	1.0%	0.9%	1.2%	2.1%	0.0%

### SUPPLY-CHAIN MANAGEMENT & COLLABORATION

**Rate the importance of supply-chain management and collaboration to your organization's success over the next five years:**

(N)	527	116	168	98	142
1=Not important	4.7%	7.8%	4.2%	3.1%	4.2%
2	8.5%	14.7%	8.9%	6.1%	4.9%
3	19.9%	14.7%	25.6%	19.4%	18.1%
4	31.3%	28.5%	28.6%	36.7%	33.3%
5=Highly important	35.5%	34.5%	32.7%	34.7%	39.6%

**Rate your organization's progress toward world-class supply-chain management and collaboration:**

(N)	524	115	167	97	142
1=No progress	9.4%	17.4%	8.4%	6.2%	6.3%
2	25.6%	23.5%	31.1%	26.8%	20.1%
3	40.3%	33.0%	38.9%	45.4%	43.8%
4	21.8%	20.0%	20.4%	21.7%	25.0%
5=World-class	3.1%	6.1%	1.2%	0.0%	4.9%

**2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY**

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>Input Measures</b>					
<b>What percentage of your workforce is dedicated to supply-chain and partner development, management, and collaboration?</b>					
(N)	523	116	163	98	143
<1%	26.2%	27.6%	26.4%	24.5%	26.2%
1-5%	51.8%	34.5%	55.8%	56.1%	57.9%
6-10%	15.5%	19.8%	14.1%	16.3%	13.1%
>10%	6.5%	18.1%	3.7%	3.1%	2.8%
<b>What is your organization's investment in information technologies (hardware and software) as a percentage of sales (three-year average)?</b>					
(N)	528	116	168	98	143
<1%	30.7%	34.5%	32.7%	22.5%	31.0%
1-5%	49.4%	41.4%	50.0%	55.1%	51.0%
6-10%	13.1%	15.5%	9.5%	14.3%	14.5%
>10%	6.8%	8.6%	7.7%	8.2%	3.5%
<b>What best describes your measurement system for reviewing return from supply-chain management and collaboration?</b>					
(N)	525	116	167	98	141
No measurement system per se or reviews	28.6%	51.7%	31.1%	19.4%	13.3%
Ad hoc monitoring of basic measures and ad hoc reviews	32.8%	28.5%	30.5%	33.7%	38.5%
Company-specific metrics monitored regularly by operations staff	18.3%	6.0%	15.6%	26.5%	25.2%
Regular monitoring and review of company-specific metrics by CEO and senior staff	14.7%	11.2%	16.8%	13.3%	16.1%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	5.7%	2.6%	6.0%	7.1%	7.0%
<b>Output Measures</b>					
<b>By approximately what percentage has total value of inventory throughout the supply chain for your primary product (furthest supplier to end customer) been reduced over the last three years?</b>					
(N)	517	113	165	95	141
<10%	58.6%	64.6%	60.0%	55.8%	54.6%
10-25%	30.0%	24.8%	28.5%	29.5%	35.7%
26-50%	9.5%	8.9%	9.7%	11.6%	8.4%
>50%	1.9%	1.8%	1.8%	3.2%	1.4%
<b>How is your supply chain a competitive advantage in terms of flexibility and speed to the marketplace?</b>					
(N)	508	110	160	94	141
Suppliers regularly measured on cost, quality, and delivery performance	35.8%	35.5%	38.1%	44.7%	28.0%
Suppliers regularly measured on cost, quality, and delivery performance as well as total acquisition cost	10.4%	10.0%	8.8%	13.8%	10.5%
Suppliers regularly measured on cost, quality, and delivery performance as well as total acquisition cost and "soft" qualities (e.g., trust, flexibility)	31.5%	30.9%	31.3%	22.3%	37.8%
Strategic suppliers and customers are active participants in our operations, continuous improvement, and product development efforts	17.5%	17.3%	16.9%	13.8%	21.0%
Strategic suppliers and customers are active participants in our operations, continuous improvement, and product development efforts and participate fully in strategic planning and identifying and responding to new markets	4.7%	6.4%	5.0%	5.3%	2.8%

**2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY**

All Firms	Number of FTEs			
	1 to 25	26 to 75	76 to 150	More than 150

**GREEN/SUSTAINABILITY**

**Rate the importance of Green/Sustainability to your organization's success over the next five years:**

(N)	528	116	169	98	142
1=Not important	15.7%	24.1%	19.5%	10.2%	8.3%
2	21.6%	22.4%	24.3%	21.4%	18.1%
3	29.9%	31.0%	24.9%	35.7%	31.3%
4	21.2%	12.9%	21.3%	20.4%	27.8%
5=Highly important	11.6%	9.5%	10.1%	12.2%	14.6%

**Rate your organization's progress toward world-class Green/Sustainability:**

(N)	526	115	168	98	142
1=No progress	21.7%	33.9%	26.8%	14.3%	11.1%
2	33.7%	27.0%	33.3%	34.7%	38.9%
3	27.6%	27.0%	25.6%	34.7%	25.0%
4	14.8%	11.3%	11.9%	15.3%	20.8%
5=World-class	2.3%	0.9%	2.4%	1.0%	4.2%

**Input Measures**

**What percentage of your workforce is dedicated to reducing energy, material, or emissions in your operations?**

(N)	522	115	166	97	141
<1%	49.4%	48.7%	42.8%	51.6%	56.6%
1-5%	35.3%	30.4%	39.8%	37.1%	32.2%
6-10%	7.5%	8.7%	9.0%	6.2%	5.6%
>10%	7.9%	12.2%	8.4%	5.2%	5.6%

**What percentage of the workforce is dedicated to Green products (product and packaging impact, green products and markets)?**

(N)	521	115	166	97	140
<1%	58.9%	53.9%	56.0%	62.9%	64.1%
1-5%	28.4%	24.4%	32.5%	29.9%	25.4%
6-10%	6.0%	9.6%	6.0%	4.1%	4.2%
>10%	6.7%	12.2%	5.4%	3.1%	6.3%

**What best describes your measurement system for reviewing return from Green/Sustainability efforts?**

(N)	525	116	167	97	142
No measurement system per se or reviews	61.3%	69.8%	65.3%	56.7%	53.5%
Ad hoc monitoring of basic measures and ad hoc reviews	20.0%	13.8%	18.6%	26.8%	21.5%
Company-specific metrics monitored regularly by operations staff	7.8%	4.3%	5.4%	10.3%	11.8%
Regular monitoring and review of company-specific metrics by CEO and senior staff	8.8%	10.3%	9.0%	4.1%	10.4%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	2.1%	1.7%	1.8%	2.1%	2.8%

**Output Measures**

**What is your annual reduction in energy per unit of product output?**

(N)	515	116	165	92	139
<10%	84.7%	86.2%	83.6%	80.4%	87.2%
10-25%	13.8%	11.2%	14.6%	19.6%	11.4%
26-50%	1.4%	1.7%	1.8%	0.0%	1.4%
>50%	0.2%	0.9%	0.0%	0.0%	0.0%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>What is your annual reduction in usage of non-recycled material per unit of product output?</b>					
(N)	514	114	165	93	139
<10%	80.0%	84.2%	78.2%	80.7%	78.7%
10-25%	16.0%	11.4%	16.4%	17.2%	17.7%
26-50%	3.1%	3.5%	4.2%	2.2%	2.1%
>50%	1.0%	0.9%	1.2%	0.0%	1.4%

**What percentage of your products (by sales volume) are completely recyclable/reusable?**

(N)	512	115	165	93	136
<50%	55.7%	53.0%	52.7%	58.1%	59.4%
51-75%	10.7%	11.3%	9.7%	15.1%	8.7%
76-89%	8.2%	9.6%	8.5%	6.5%	8.0%
90-99%	16.6%	20.0%	21.2%	10.8%	12.3%
100%	8.8%	6.1%	7.9%	9.7%	11.6%

### GLOBAL ENGAGEMENT

**Rate the importance of global engagement to your organization's success over the next five years:**

(N)	526	114	168	97	143
1=Not important	19.6%	27.2%	21.4%	21.7%	10.3%
2	20.9%	22.8%	25.6%	18.6%	15.9%
3	20.2%	22.8%	20.2%	18.6%	19.3%
4	18.3%	10.5%	16.1%	22.7%	23.5%
5=Highly important	21.1%	16.7%	16.7%	18.6%	31.0%

**Rate your organization's progress toward becoming a world-class global player:**

(N)	524	113	168	97	142
1=No progress	29.0%	39.8%	33.3%	28.9%	16.0%
2	31.3%	31.9%	32.1%	30.9%	30.6%
3	18.5%	15.0%	16.7%	23.7%	20.1%
4	16.8%	9.7%	16.1%	14.4%	24.3%
5=World-class	4.4%	3.5%	1.8%	2.1%	9.0%

#### Input Measures

**What percentage of your total direct workforce is located overseas and/or located domestically and responsible for global business activities?**

(N)	528	115	168	98	143
0%	58.3%	75.7%	67.3%	55.1%	37.2%
1-25%	36.0%	20.9%	30.4%	41.8%	50.3%
26-50%	3.6%	2.6%	1.8%	2.0%	7.6%
>50%	2.1%	0.9%	0.6%	1.0%	4.8%

**What best describes your measurement system for reviewing return from global engagement?**

(N)	520	115	165	94	143
No measurement system per se or reviews	59.8%	75.7%	64.2%	59.6%	42.8%
Ad hoc monitoring of basic measures and ad hoc reviews	16.5%	11.3%	18.2%	20.2%	16.6%
Company-specific metrics monitored regularly by operations staff	7.9%	6.1%	6.7%	6.4%	11.7%
Regular monitoring and review of company-specific metrics by CEO and senior staff	13.1%	6.1%	7.9%	12.8%	24.1%
Regular monitoring and review of company-specific metrics by CEO and senior staff and transparency and clarity throughout the organization	2.7%	0.9%	3.0%	1.1%	4.8%

## 2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>Output Measures</b>					
<b>By what percentage has dollar volume of sales outside the United States changed over the past three years?</b>					
(N)	518	114	166	95	140
<25%	77.0%	82.5%	78.9%	75.8%	71.1%
26-50%	15.8%	10.5%	15.7%	19.0%	18.3%
51-100%	4.1%	2.6%	3.0%	4.2%	6.3%
>100%	3.1%	4.4%	2.4%	1.1%	4.2%
<b>In how many countries outside of the United States does your organization operate or partner in production facilities?</b>					
(N)	520	115	166	94	142
0	67.3%	80.9%	72.9%	66.0%	51.4%
1-5	23.9%	14.8%	21.1%	26.6%	32.6%
6-10	3.7%	1.7%	3.6%	2.1%	6.3%
>10	5.2%	2.6%	2.4%	5.3%	9.7%
<b>In how many countries outside of the United States does your organization have sales and/or distribution facilities?</b>					
(N)	520	114	166	94	143
0	62.9%	76.3%	72.3%	60.6%	43.5%
1-5	23.7%	19.3%	18.7%	26.6%	30.3%
6-10	4.8%	3.5%	3.6%	6.4%	6.2%
>10	8.7%	0.9%	5.4%	6.4%	20.0%
<b>GOING FORWARD</b>					
<b>To what extent does your geographic region in Wisconsin have the support services, peer groups, training opportunities and resources available to support the following?</b>					
<b>Customer-focused innovation</b>					
(N)	526	116	166	97	143
1=No support	10.3%	15.5%	12.1%	7.2%	6.2%
2	20.9%	25.0%	21.7%	19.6%	17.9%
3	32.7%	29.3%	29.5%	37.1%	36.6%
4	26.1%	21.6%	25.9%	27.8%	29.0%
5=Full support	10.1%	8.6%	10.8%	8.3%	10.3%
<b>Engaged people/Human-capital acquisition, development and retention</b>					
(N)	524	115	166	97	143
1=No support	6.5%	10.4%	7.8%	4.1%	3.5%
2	23.5%	27.0%	22.3%	24.7%	21.4%
3	31.7%	27.0%	35.5%	36.1%	28.3%
4	29.4%	27.0%	22.9%	28.9%	39.3%
5=Full support	9.0%	8.7%	11.5%	6.2%	7.6%
<b>Superior processes/Improvement focus</b>					
(N)	522	115	164	97	143
1=No support	6.7%	13.9%	5.5%	5.2%	3.5%
2	17.2%	20.9%	20.1%	14.4%	13.1%
3	28.9%	31.3%	26.8%	33.0%	26.9%
4	33.3%	23.5%	32.3%	37.1%	40.0%
5=Full support	13.8%	10.4%	15.2%	10.3%	16.6%
<b>Supply-chain management and collaboration</b>					
(N)	523	115	165	97	143
1=No support	8.0%	13.9%	8.5%	5.2%	4.8%
2	23.1%	23.5%	24.9%	25.8%	19.3%
3	34.4%	34.8%	30.9%	43.3%	31.7%
4	27.0%	20.9%	26.7%	20.6%	36.6%
5=Full support	7.5%	7.0%	9.1%	5.2%	7.6%

2008 WISCONSIN NEXT GENERATION MANUFACTURING STUDY

	Number of FTEs				
	All Firms	1 to 25	26 to 75	76 to 150	More than 150
<b>Green/Sustainability</b>					
(N)	522	115	166	95	143
1=No support	16.5%	25.2%	15.1%	20.0%	9.0%
2	29.1%	24.4%	30.1%	31.6%	30.3%
3	33.0%	27.8%	33.1%	31.6%	37.2%
4	14.8%	16.5%	13.3%	12.6%	16.6%
5=Full support	6.7%	6.1%	8.4%	4.2%	6.9%
<b>Global engagement</b>					
(N)	517	115	164	94	141
1=No support	20.7%	32.2%	18.3%	17.0%	16.8%
2	31.9%	27.8%	33.5%	36.2%	30.8%
3	30.4%	26.1%	29.3%	34.0%	32.2%
4	11.6%	8.7%	12.8%	12.8%	11.9%
5=Full support	5.4%	5.2%	6.1%	0.0%	8.4%