

Manufacturing Matters
in Michigan

Online Survey Results

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Introduction

The *Manufacturing Matters to Michigan* survey was conducted as one of several sources of input for the Michigan Summit on Manufacturing, which will be held on December 8, 2003. Other sources included personal interviews with manufacturers, letters and emails from business people, and research regarding the trajectory of manufacturing in our state and the nation. Together, these streams of information are intended to provide background perspective to the participants in the Summit regarding the problems currently facing many Michigan manufacturers and potential actions that could address those problems.

Methodology

The survey was not conducted using a controlled sample; instead, it was made broadly available to those who have an interest in the future of manufacturing. Thus, we do not characterize the results as being representative of all Michigan manufacturers or Michiganians at large. The results reported here simply reflect the responses of those who participated in the survey. It is likely that those who have a strong stake in the future of manufacturing in this state were more motivated to respond than those who do not.

To elicit responses, email solicitations were sent to over 7,000 individuals in the manufacturing community to invite them to participate in the online survey. Business and industry associations were also asked to send a similar email to their members. The survey period lasted from 5:00 p.m. October 30, 2003 through 11:59 p.m. November 10, 2003. Altogether, 1,764 individuals saw at least some part of the survey instrument. A total of 1,096 individuals completed the survey and the remaining closed out of the survey at various stages. Of those who did not complete the survey, 320 individuals exited before responding to the first question. This means that the completion rate among those who commenced the survey was approximately 76%.

Who Responded

Of 1,096 respondents who completed the survey, most (85%) reported that they work in a Michigan manufacturing company. The majority of this group reported that they are owners, presidents, or CEOs (41%) or part of the management team. Figure 1 displays the distribution of work capacity for respondents.

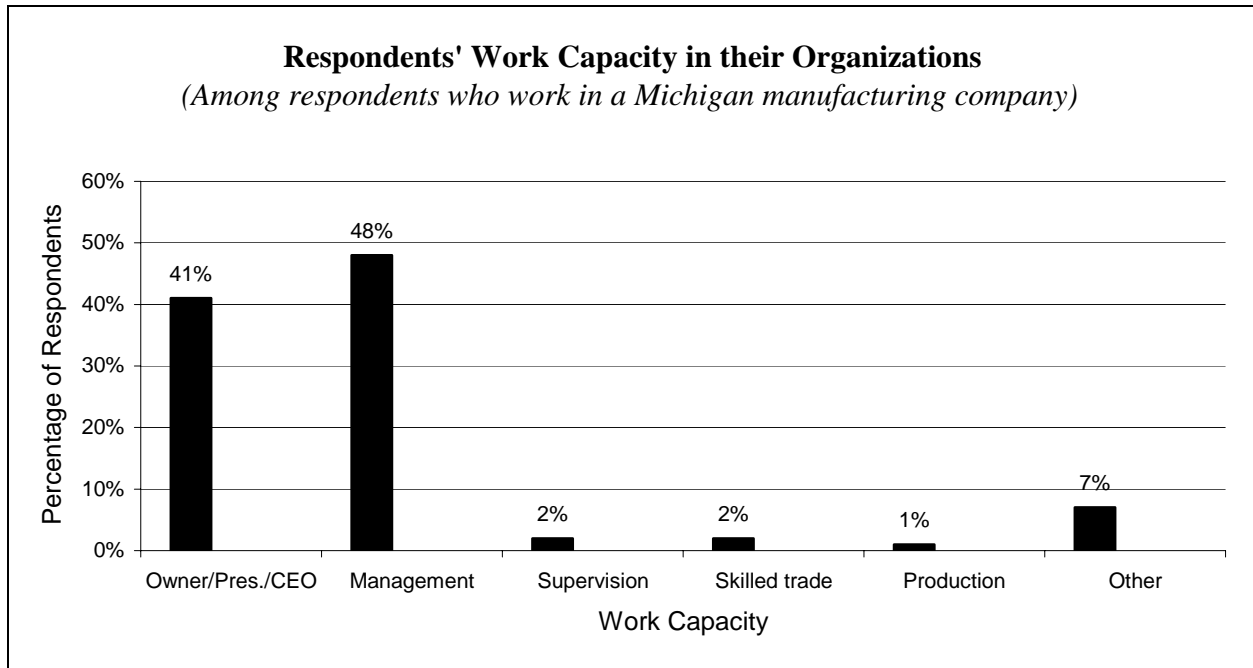


Figure 1

Size of Company

When respondents were asked for the combined number of employees in their organizations in all locations, they provided a mix of responses. These responses do not represent the current business environment. For instance, more respondents reported employment with companies employing 1,000 or more people (21%) than all other company sizes. Few respondents (10%) reported being employed by a company with less than ten employees. According to the 2000 Statistics of U.S. Businesses, 43% of manufacturing businesses employ 1 to 9 employees, 17% of manufacturing businesses employ 10 to 19 employees, 23% employ 20 to 99 employees, 8% employee 100 to 999 employees, and about 4% of manufacturing businesses employ 1,000 or more employees.

Of the respondents who indicated they were the owner, president, or CEO of their manufacturing company, over half (54%) of them reported that they employ less than 49 employees, 36% indicated they employ 50 to 249 employees, 7% employ 250 to 999 employees, and 3% employ 1,000 or more employees. Respondents who reported that they are managers of a manufacturing firm tended to be from larger companies. Over half of the managers are employed in a firm with 250 to 999 (22%) or 1,000 or more employees (34%). Seventeen percent of managers work in a firm of 49 employees or less, and 27% are employed by a firm with 50 to 249 employees. Figure 2 reports the percentages of respondents who are employed in various company sizes.

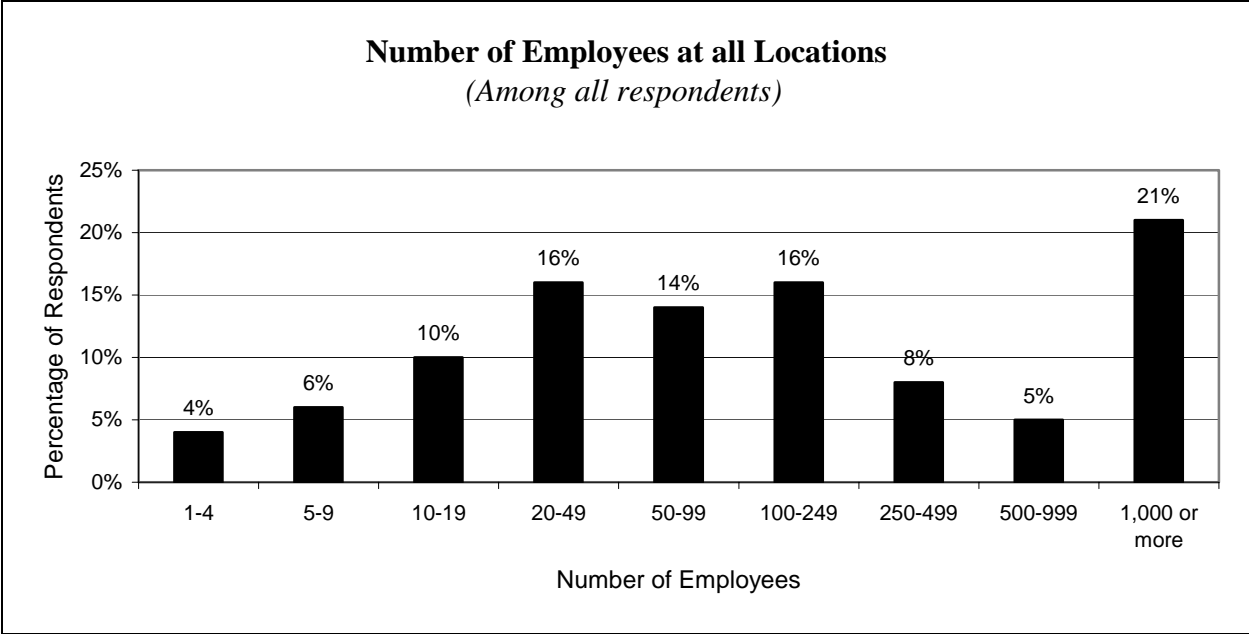


Figure 2

Michigan Employment

Respondents were asked what percentage of their organizations' total employment is located in the state of Michigan. Figure 3 shows that high percentages (64%) of respondents are employed in organizations where at least 90% of their employment is located in Michigan. Few respondents reported that their organizations' total employment in Michigan is less than 90%.

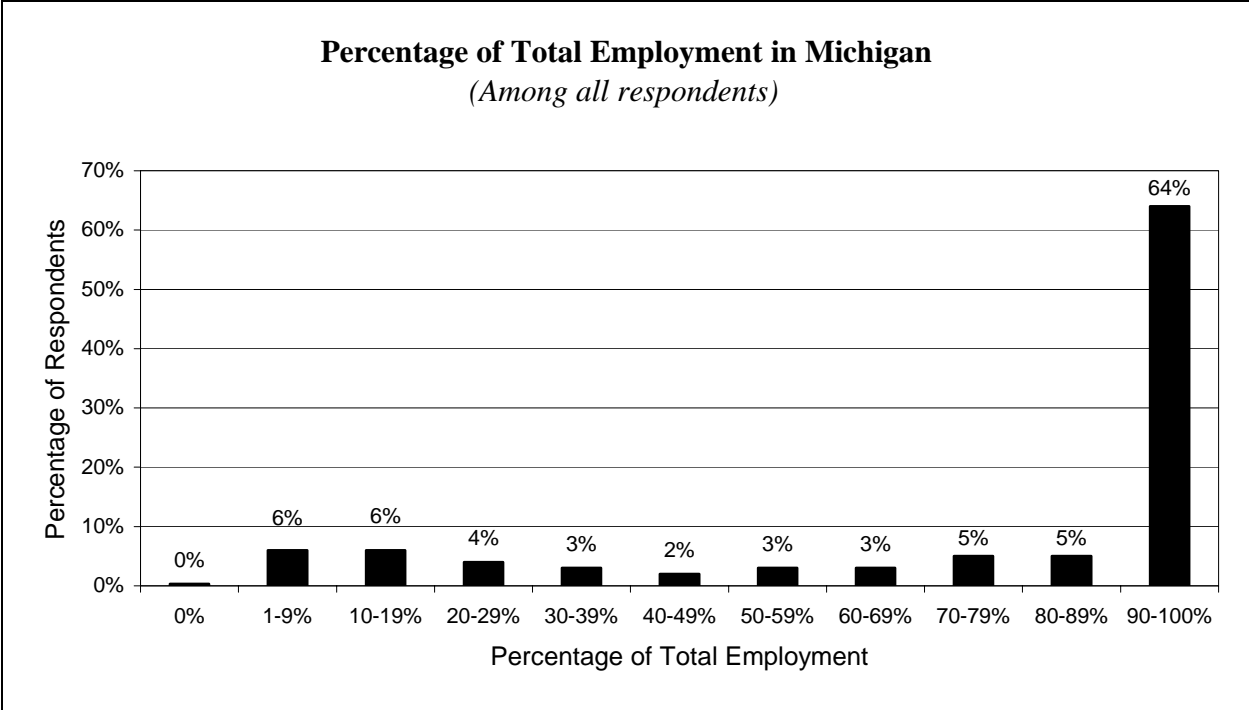


Figure 3

Type of Organization

The 932 respondents who reported that they work in a Michigan manufacturing company were asked to indicate their company's primary industry sector. More respondents reported employment with an automotive and transportation equipment company (33%) than with other types of manufacturing companies. Nineteen percent of respondents reported falling into the "other" category; these include manufacturers in aerospace, packaging, and tool and die. Figure 4 displays the distribution of the various industry sectors reported by respondents in the manufacturing industry.

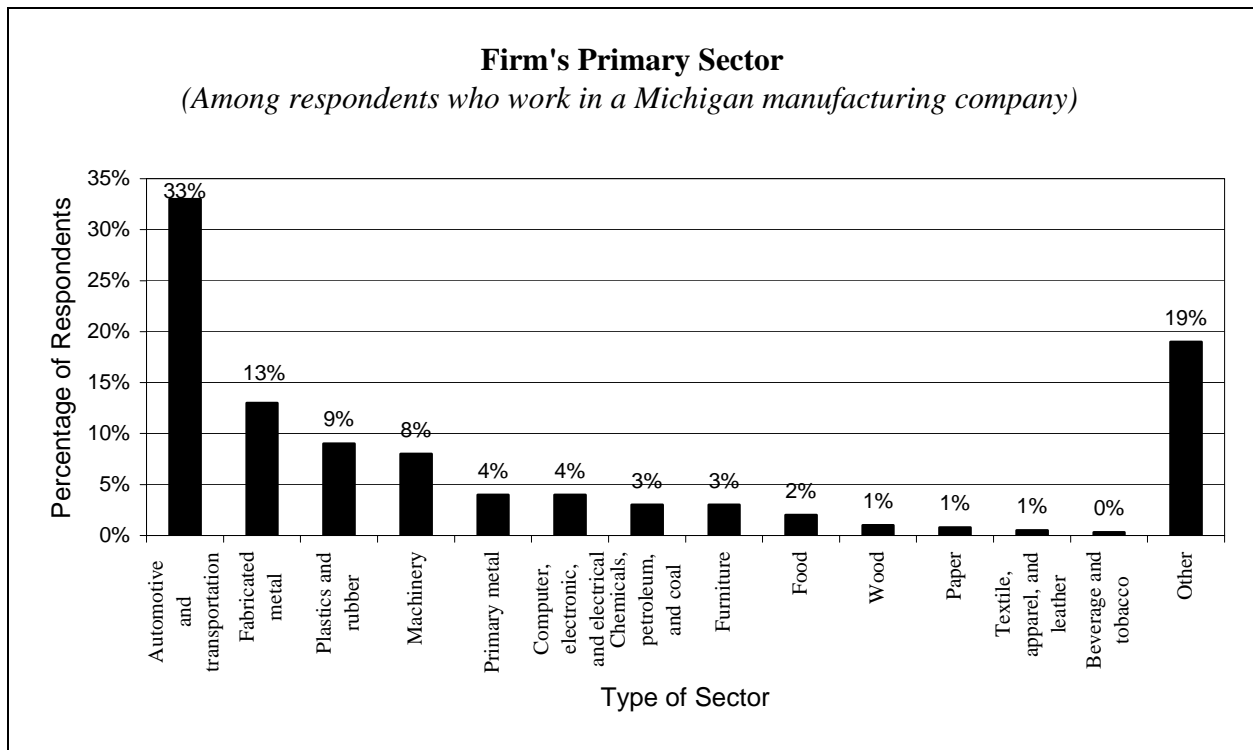


Figure 4

The 164 respondents who reported that they do not work in a Michigan manufacturing firm were asked to indicate their organizations' type. Approximately a third (29%) of them reported they were with a nonmanufacturing business, and 20% indicated they were with a nonprofit. Twenty-eight percent of these respondents reported other types of organizations such as consulting firms. Figure 5 displays the distribution of the types nonmanufacturing firms reported by these respondents.

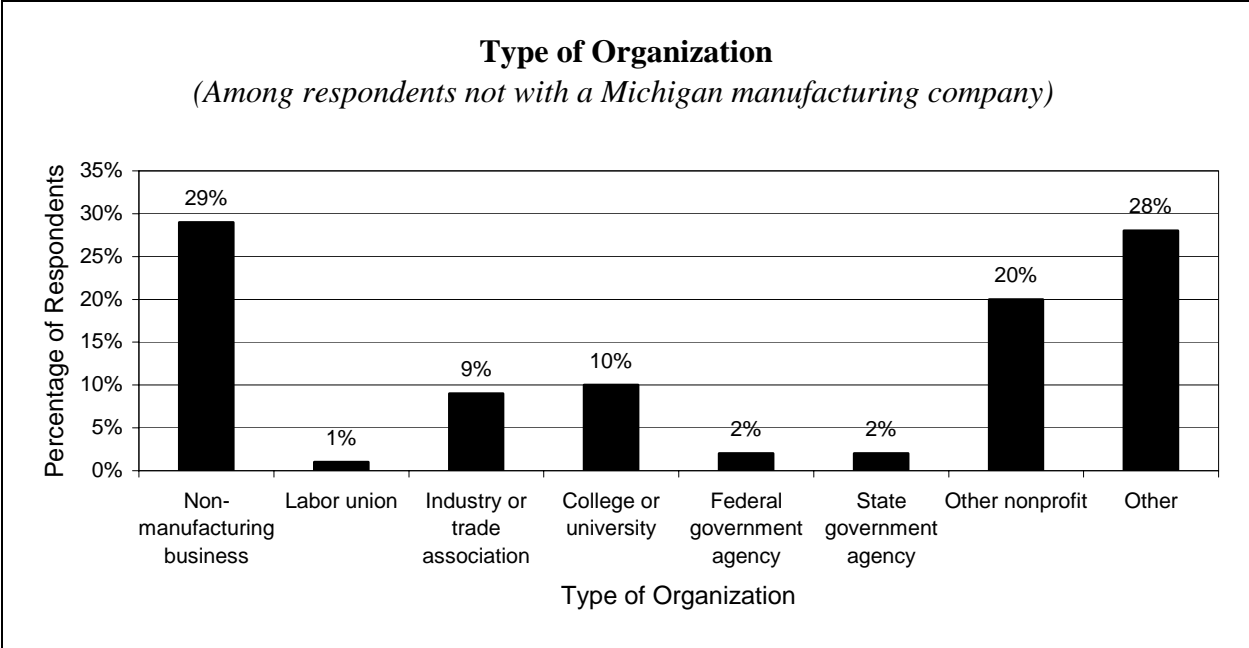


Figure 5

Location of Workplace

The majority (96%) of all respondents reported that they work in the state of Michigan. Most of these respondents are employed in companies located in southwest (37%) or southeast (44%) Michigan. Figure 6 displays the various regions of Michigan that respondents reported they are working in.

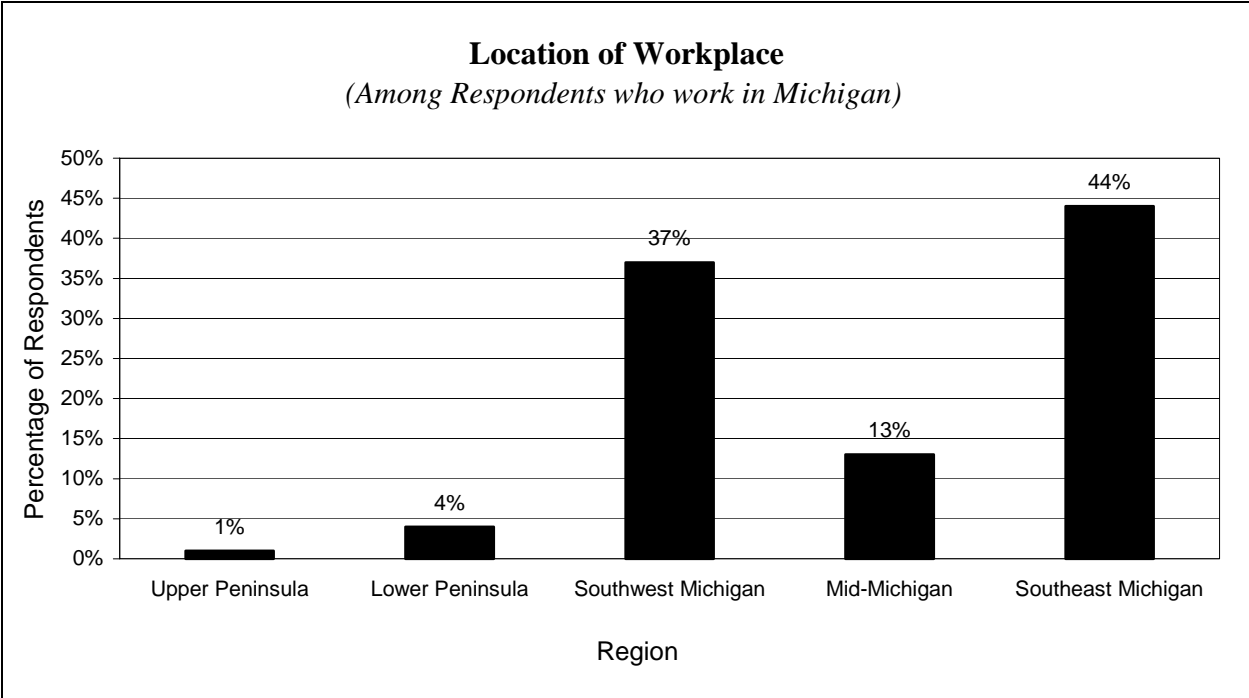


Figure 6

All respondents were asked about their company's plans for operations in Michigan and outside of Michigan during the next five years. As Figure 7 shows, most respondents indicated that their companies plan to maintain or expand the level of operations during the next five years inside and outside of Michigan. Over half (51%) of respondents indicated that their company would expand, and 37% would maintain the current level of operations in the state of Michigan. Forty-three percent of respondents indicated that their companies would maintain (13%) or expand (43%) the level of operations outside the state of Michigan. About 42% of respondents reported that they do not have operations outside the state of Michigan.

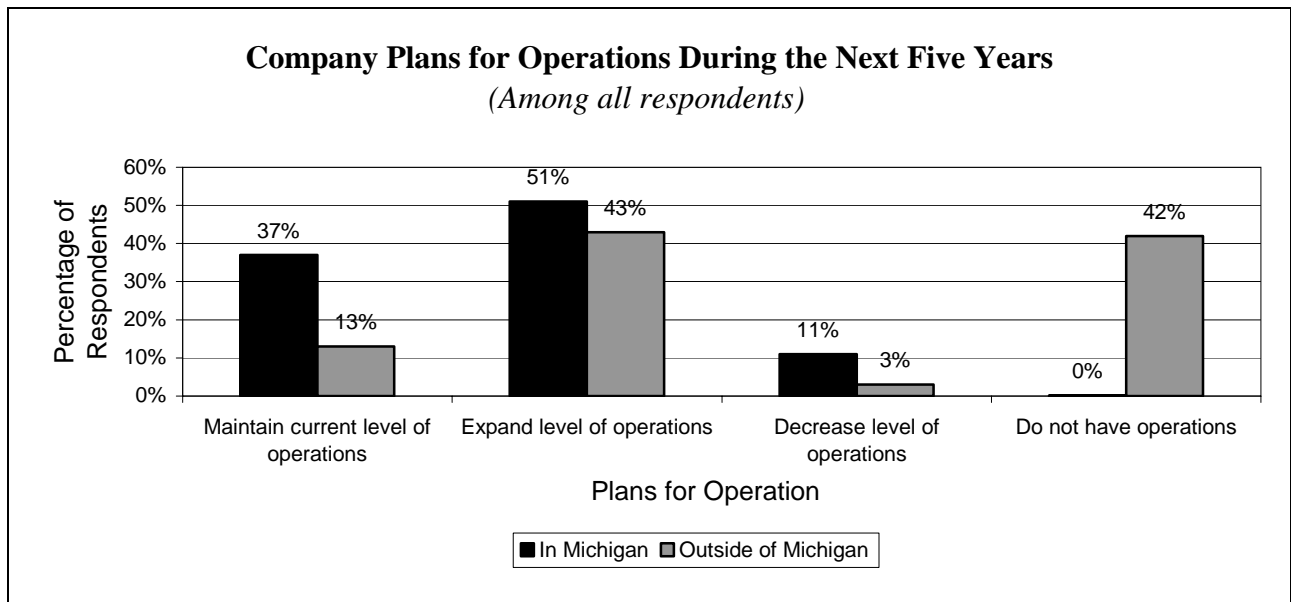


Figure 7

Forces Affecting Competitiveness

Respondents were provided with a list of ten factors that may affect the competitiveness of their businesses. They were asked to indicate the relative importance of these factors by allocating a total of 100 points among them. Respondents were also given the opportunity to note up to three other factors they felt affected the competitiveness of their firms.

By far, respondents gave the highest point allocation to global competition, followed by competition from other U.S. firms. While global and U.S. competition were consistently seen as important factors, over half of all respondents allocated no points at all to “access to capital,” “energy cost,” and “state government policy.” Respondents also wrote in other factors that affected the competitiveness of their company including health care (81 respondents), taxes (27 respondents), and labor costs (20 respondents). Table 1 compares the average points that respondents allocated for each of the ten listed factors.

Table 1: Relative Importance of Competitive Factors

(Average Allocated Points Comparison)

Factors of Competitiveness	All Respondents (n = 1095)	Michigan Manufacturing Respondents (n = 932)	Other Respondents (n = 164)
Global competition	27.5	28.4	22.7
Competition from other U.S. firms	11.5	11.9	8.8
Maintaining and improving skills of your workforce	10.2	9.8	12.2
Improving the production process	8.8	8.7	9.1
Adding new technology	8.1	7.8	9.6
Federal government policy	7.3	7.3	7.4
Improvement-management strategies and practices	6.3	5.9	8.3
Access to capital	5.4	5.3	6.6
State government policy	5.1	5.0	5.8
Energy costs	4.8	4.8	4.6

While most factors tracked consistently by size and type of manufacturing firm, point allocation for “access to capital” varied substantially by size of firm. Respondents of smaller manufacturing firms were more concerned with this factor than respondents of larger manufacturing firms. Figure 8 displays the average point allocation by the number of employees.

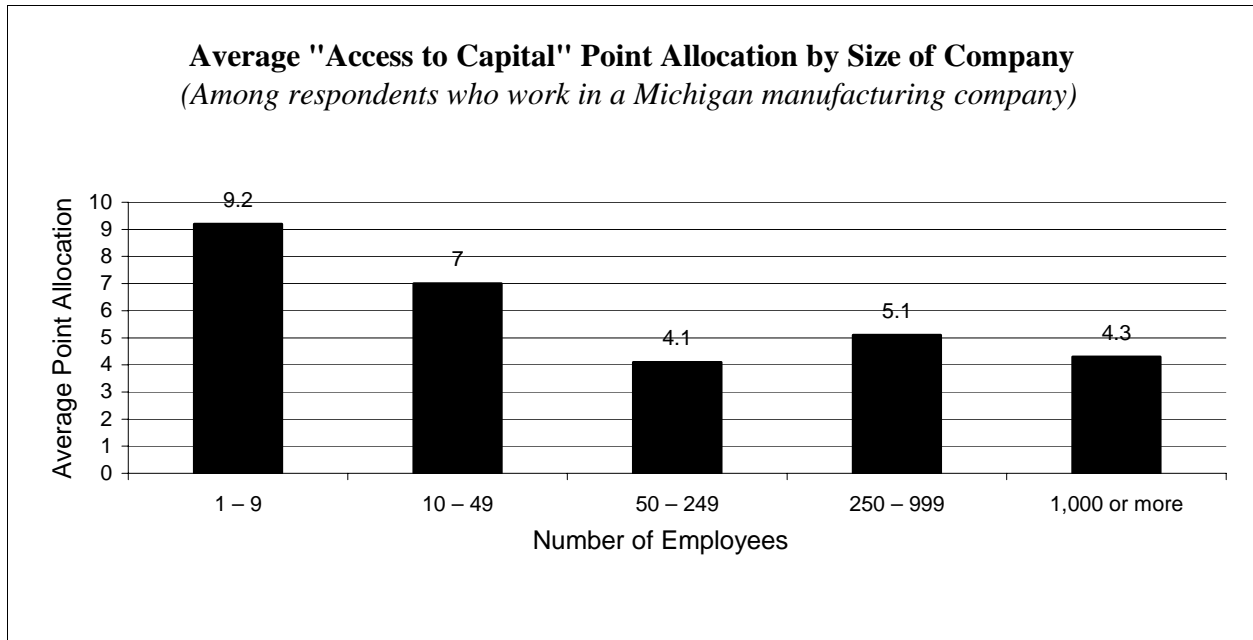


Figure 8

Potential Government Actions

Survey respondents were provided with 21 potential government actions that addressed various issues, including categories of actions that focused on leveling the playing field in the global marketplace; programs to support research and development, collaboration, state tax, training and education; support to manufacturing firms; and permitting practices. Respondents were asked to rate the importance of all 21 actions on a scale of 1 to 5 where 1 was “not at all important” and 5 was “very important.” Respondents were then asked to rank the top three potential actions they felt were most important to them, choosing from among those they had rated a 4 or 5. Table 2 compares the responses of Michigan manufacturing respondents and other respondents.

Table 2: Rating of Potential Actions

Percentage of respondents selecting the action as first, second, or third most important

Potential Government Actions	Michigan Manufacturing Respondents (n = 932)	Other Respondents (n = 164)
Actively support efforts to negotiate regional and bilateral trade agreements that provide a more level playing field for U.S. manufacturers, including opening foreign markets to U.S. products, and addressing the lax labor and environmental standards and unfair government subsidies of other nations.	50%	29%
Push the federal government to end discriminatory currency manipulation by China, Japan, and other nations that have purposely kept their currency undervalued relative to the dollar to promote exports to the U.S. and keep out American-made goods.	35%	16%
Support high-quality education in Michigan’s K-12 schools to ensure a highly skilled workforce in the future. Focus especially on math and science education at all levels.	29%	32%
Ensure that any tax that replaces the Single Business Tax encourages manufacturing investment in Michigan.	26%	17%
Create an online Michigan “One-Stop Shop” to coordinate and expedite all business permit and regulatory applications, including environmental permitting.	16%	26%
Support the expansion of federal technical assistance programs to assist manufacturing firms in implementing critical methods to improve productivity and the manufacturing process, such as lean manufacturing, Six Sigma, and ISO.	15%	19%
Push Congress to reduce employer health costs for retirees by enacting a prescription drug benefit in Medicare that covers prescription drug costs for all seniors aged 65 or older.	14%	17%
Demand more effective "Buy American" legislation regulating U.S. Department of Defense (DOD) procurement, especially in such industries as tooling and machinery.	14%	9%
Increase grants for training new and current employees. Support changes in federal programs to allow greater focus on current employees.	14%	22%

Table 2: Rating of Potential Actions

Percentage of respondents selecting the action as first, second, or third most important

Potential Government Actions	Michigan Manufacturing Respondents	Other Respondents
Encourage the federal government to ensure that China lives up to its World Trade Organization (WTO) commitments. If China does not do so, the federal government should bring suit against China in the WTO.	13%	8%
Expand federal government support for manufacturing research and development through grants and R&D tax credits.	13%	19%
Develop regional, industry-led alliances of employers, community colleges, universities, and workforce boards to address the workforce needs of manufacturing firms quickly, effectively, and comprehensively.	9%	10%
Enforce and strengthen intellectual property protections, such as patents, trademarks, and copyrights, to prevent counterfeiting in the manufacturing sector.	8%	8%
Push for improvement of the federal environmental permitting process, resulting in quicker turnaround.	8%	9%
Continue providing tax credits against the Single Business Tax to companies expanding in or relocating their operations to Michigan through the Michigan Economic Growth Authority (MEGA) incentive program.	7%	9%
Form interstate alliances through cooperative arrangements with other Great Lakes states to support the manufacturing supply chain, thus helping the entire region compete more effectively against competitors in the U.S. and overseas.	6%	12%
Encourage and support new collaborative business models for manufacturing and revise U.S. antitrust laws that limit U.S. manufacturing consortia.	5%	8%
Develop incentives to attract science and engineering students to Michigan colleges and universities and to retain graduates of these programs within the state.	5%	14%
Push the federal government to replace the Foreign Sales Corporation/Extraterritorial Income (FSC/ETI) rules with a tax structure that assists companies that produce in the U.S.	4%	3%
Support changes to U.S. pension laws to allow contributions to more accurately reflect return on investments as opposed to the current 30-year Treasury rate.	4%	3%
Provide state support for commercializing manufacturing research and development through incentives or grants to venture capital and “angel” investors.	3%	9%

Again, rankings were generally consistent by size and type of firm, however, respondents differed somewhat in their rankings according to their subsectors within manufacturing. The percentage of importance regarding the actions “ending currency manipulation,” “‘Buy American’ legislation,” and “support for high-quality in Michigan’s K-12 schools” was dissimilar among the various sectors of the manufacturing industry. Table 3 shows that respondents working in plastic and rubber manufacturing firms and those in machinery firms in Michigan were more likely than respondents in any other manufacturing sector to report that “ending discriminatory currency manipulation” is among the top three most important actions to them. Respondents working in machinery firms were less likely than respondents from other manufacturing sectors to indicate that “supporting high-quality education in Michigan’s K-12 schools” is among the top three most important actions to them. “Buy American” legislation” was more important to respondents working in machinery manufacturing than respondents from all other sectors.

Table 3: Rating of Potential Actions by Manufacturing Subsector
Percentage of respondents selecting the action as first, second, or third most important

	Plastic and Rubber	Fabricated Metal	Machinery	Automotive and Transportation	Other Sector
	(n = 85)	(n = 117)	(n = 78)	(n = 308)	(n = 344)
Push the federal government to end discriminatory currency manipulation by China, Japan, and other nations.	53%	39%	46%	31%	30%
Demand more effective "Buy American" legislation regulating U.S. Department of Defense (DOD) procurement.	12%	15%	26%	15%	10%
Support high-quality education in Michigan’s K-12 schools to ensure a highly skilled workforce in the future. Focus especially on math and science education at all levels.	26%	32%	19%	29%	32%

Other Key Issues

Respondents were also asked about other actions that the survey instrument had not addressed. Approximately 40% of respondents suggested other important actions and some included several. Among all respondents, the top three “other” issues include the cost of health care (69 respondents or 6.3%); an overhaul or reform the various tax systems such as the capital gains tax, personal tax, and property tax (58 respondents or 5.3%); and the elimination of the steel tariff (42 respondents or 3.8%). Other issues mentioned include cutting or reducing legislation and government intervention (21 respondents or 1.9%), support for small business (17 respondents or 1.5%), the negative impact of unions (13 respondents 1.2%), and reforming Workers’ Compensation (12 respondents or 1.1%). Other suggestions were mentioned by less than 1% of respondents.

Company Plans for Future Operations

Respondents were asked about their company's plans for increasing, decreasing, or maintaining current levels of operations over the next five years, both inside and outside of Michigan. Overall, 73% reported that they plan to expand, 23% expect their companies to maintain, and 4% expect to decrease their current levels of operations.

The following figures report separately on respondent expectations for operations inside Michigan and those outside the state.

Michigan Operations

The levels of operations reported by respondents were not consistent among the various sizes of the manufacturing firms. As can be seen in Figure 9, respondents working in companies with less than 1,000 employees are more likely than other respondents to report that their company plans to expand the level of operation in Michigan. Respondents working in companies with 1,000 or more employees were more likely than other respondents to report that their company plans to decrease the level of operation in Michigan.

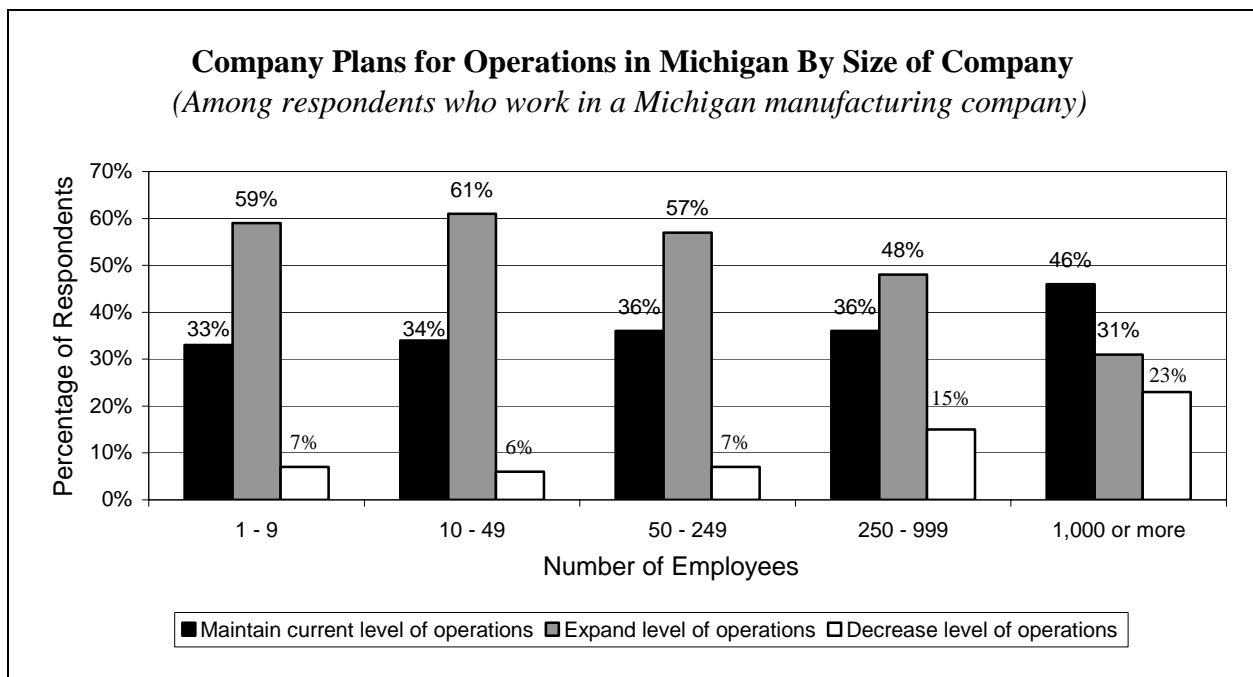


Figure 9

Out-of-State Operations

Figure 10 highlights responses of manufacturing respondents about their companies' level of operation outside of Michigan. The figure shows that respondents working in larger companies are more likely than other companies to report that their company plans to expand the level of operation outside of Michigan. This figure separates the fraction of firms that do not currently have operations outside of Michigan and do not expect to within the next five years. Most larger firms currently have operations outside Michigan, and they are more likely to expand those operations than their operations inside the state.

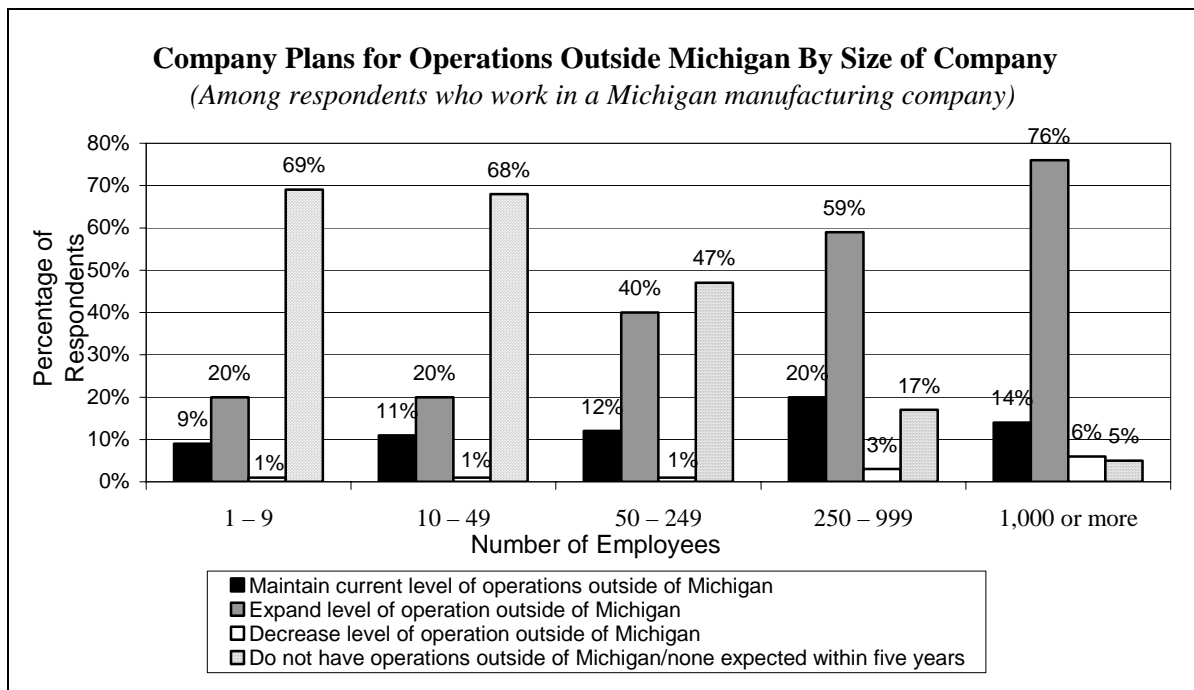


Figure 10