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KMS Introduction

Kansas Manufacturing Solutions (KMS) is a business consultant focused exclusively on the Kansas manufacturing industry. KMS has decades of experience providing problemsolving solutions to manufacturers so they can compete and grow in the domestic and global marketplaces. Visit www.wearekms.com to learn more about how we solve problems for Kansas manufacturers.

KMS holds the contract for the National Institute of Standards and Technology's (NIST) Hollings Manufacturing Extension Partnership (MEP) program for the state of Kansas. This private-public partnership is made up of a national network of Centers in all 50 states and Puerto Rico.

As the only resource in Kansas solely dedicated to supporting small to medium sized manufacturing companies, KMS is held accountable by NIST MEP to ensure our manufacturing customers' needs are met. This accountability is achieved through published

third-party quarterly surveys of KMS clients confirming a performance scorecard of reported and certified value. This provides reassurance to Kansas manufacturers that KMS has their best interests in mind and that a positive ROI is realized.

KMS also has the best interests of the Kansas manufacturing ecosystem in mind. The Kansas Manufacturing Industry Questionnaire is a result of that dedication to the Kansas manufacturing ecosystem. It is important for manufacturers and manufacturing supporters and influencers in Kansas to understand the hurdles the industry is facing and the opportunities to improve the ability for manufacturers to be successful.

While KMS provides critical services to manufacturers, working shoulder-to-shoulder with companies developing strategy in the board rooms to process, efficiency, and quality on the shop floor, KMS also positions manufacturing to have a positive impact on the state and local communities.

Kansas Manufacturing Landscape

MANUFACTURING PLAYS A CRITICAL ROLE IN THE KANSAS ECONOMY

(2021)

2,435Manufacturing firms (2019)

\$79,722
Compensates workers on average (2021)

165,000
Employed individuals or approximately 12% of the total workforce (2021)

\$10 billion
Approximately exported in manufactured goods

\$28.7 billion

Contributed in Gross Domestic Product (GDP) or 15% of the state's total GDP (2021)

Sources: U.S.

Bureau of
Economic Analysis
and the U.S.
Census Bureau

Kansas Manufacturing Solutions (KMS) is pleased to release the results of the 2022 Kansas Manufacturing Industry Questionnaire.

The industry survey was conducted to gain insight into the needs and challenges of manufacturers in Kansas.

The 2022 industry survey was conducted from September 2022 to December 2022 and had a 5% margin of error. Because of the importance of manufacturing to the state of Kansas, and to ensure manufacturers' voices are heard, KMS will continue to conduct this survey annually.

Executive Summary

To better understand the underlying issues, risks, strengths, and opportunities that define the current and future needs of manufacturing in the state, KMS undertook a detailed needs assessment of Kansas manufacturers

5 KEY FINDINGS INCLUDE THE FOLLOWING:

- 1) To combat domestic and global competition, manufacturers are focusing on producing better quality products. And the most frequently identified planned source of profit growth is to increase market penetration in current markets. One change to note is the number of companies reporting they intend to grow profits through new product development increased by 10% from the previous survey, making new product development the third most popular planned profit growth action.
- 2) To best determine the needs of Kansas manufacturers, it is important to understand what business leaders perceive as the major impediments to growth.

As far as current issues negatively impacting business growth today, Inflation (66% agree/strongly agree) was the second most challenging issue on the list. Concern about the rising cost of raw materials (67% agree/strongly agree –up from 57% in 2021) stayed at the top of the list.

Manufacturers were asked what will restrict their ability to grow over the next five years. The 2022 results were similar to 2021's questionnaire results:

- · Raw material costs
- · Workforce availability
- · Labor costs
- Energy costs

However, in 2022 the percentage of manufacturers who selected "strongly agree" instead of "agree" for their answers increased for each of the four topics.

3) Implementation of initiatives shows where manufacturers are investing their time and effort in their business.

The most implemented initiatives are ERP systems (increased in ranking from 2021), safety programs, cybersecurity, social media marketing, and employee wellness programs.

The least implemented initiatives are primarily associated with Industry 4.0 (with the exception of cybersecurity). Companies in Kansas, particularly small and medium-sized are struggling to find on-ramps into Industry 4.0.

Automation and robotics have been implemented by only 28% of manufacturers, while Additive Manufacturing (16%) and Augmented and Virtual Reality (8%) were even lower on the adoption scale. These percentages are similar to 2021's results.

4) Workforce is a concern to manufacturers right now and for the future. Most manufacturers (90%) agree it is difficult to attract qualified candidates to fill open positions. With retirements expecting to increase in number, the labor gap will continue to grow.

Despite expression of workforce availability issues, there is little evidence of widespread use of proven tools to ease those issues. Some of those tools include talent pipeline outreach programs (apprenticeships, internships), employee retention programs, process improvement system implementation, and industry 4.0 applications.

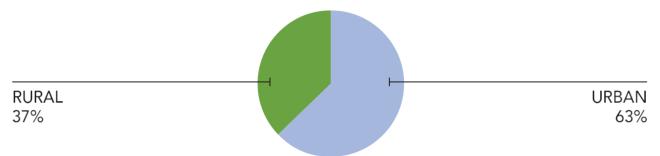
5) Although manufacturers have indicated there are concerns associated with inflation, skilled labor shortages, and rising costs associated with raw materials, healthcare, and energy - 97% of the participating manufacturers felt confident about the future of their company. 81% expect increases in their gross revenue in 2023, and 61% expect increases in profitability.

Survey

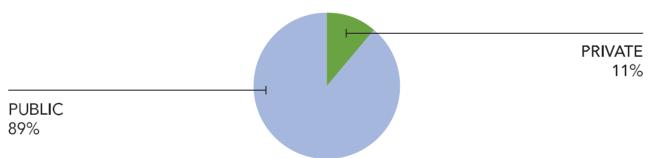
Results

Manufacturing Participant Demographics

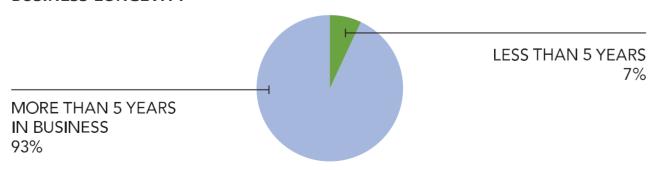
GEOGRAPHICAL LOCATION



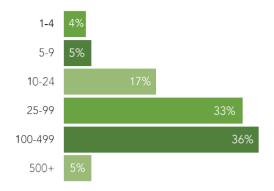
COMPANY OWNERSHIP



BUSINESS LONGEVITY



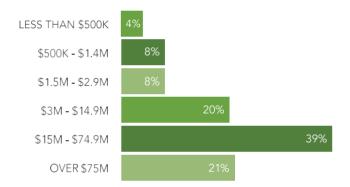
COMPANY SIZE



TOP 6 INDUSTRIES

MISCELLANEOUS MANUFACTURING
FABRICATED METAL
MACHINERY MANUFACTURING
FOOD MANUFACTURING
PRIMARY METAL MANUFACTURING
CHEMICAL MANUFACTURING

ANNUAL SALES



TOP 6 COUNTIES

WYANDOTTE
JOHNSON
RENO
HARVEY
LEAVENWORTH
SEDGWICK



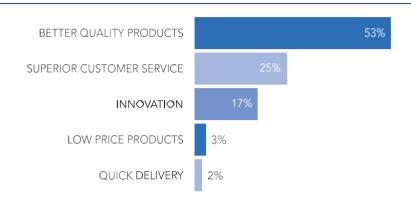
Strategy

BUSINESS STRATEGY

53% of manufacturers indicated their primary business strategy is producing Better Quality Products.

It is not uncommon for manufacturers to prioritize producing better quality products as their primary business strategy. This approach ensures customers receive goods that meet or exceed their expectations, leading to increased customer satisfaction and loyalty.

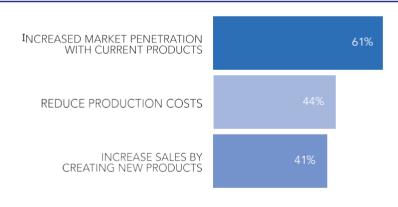
Moreover, manufacturing businesses that focus on producing better quality products often enjoy a competitive advantage over their competitors. High-quality products can help establish a brand's reputation for excellence, leading to increased sales and revenue over time.



GROWTH STRATEGY

Manufacturers were asked to select their top three drivers to increase profits over the next five years.

The most identified planned source of profit growth is to increase market penetration with the existing products. The driver of increasing sales by creating new products jumped 10% from 2021 to 2022.

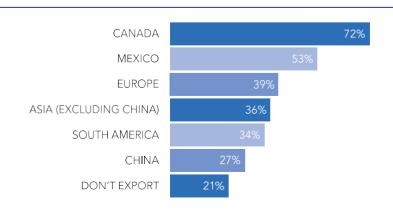


EXPORT STRATEGY

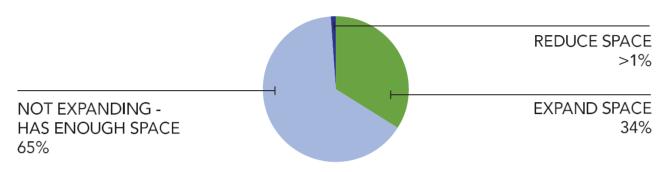
Only 13% of respondents indicated they would increase profits by expanding into new international markets.

79% of the manufacturing respondents indicated they export their products.

The top two locations Kansas manufacturers export to are Canada and Mexico.



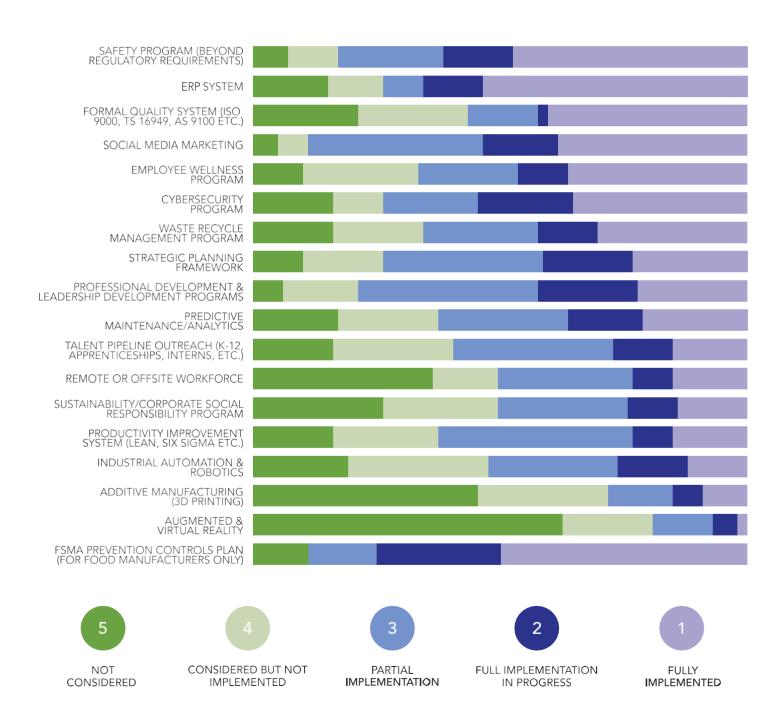
FACILITY EXPANSION





IMPLEMENTATION STRATEGY

Manufacturers were asked about various strategic initiative actions and the degree to which they have been implemented in their organizations. For a list of 17 initiatives, the questionnaire asked the extent to which the company has implemented each item.



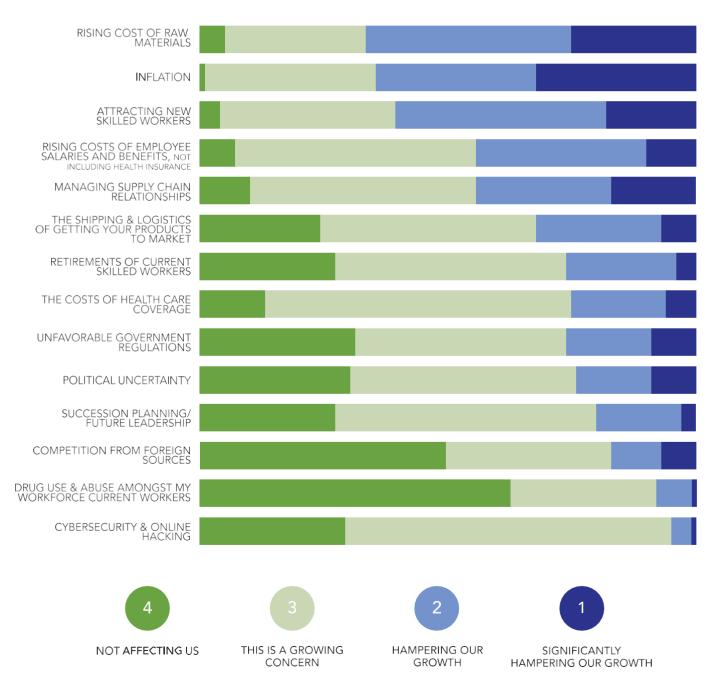


Issues

IMPACTING BUSINESS GROWTH NOW

To best determine the needs of Kansas manufacturers, an understanding of what items business leaders perceive as the major impediments to growth is required. Respondents to the survey provided clear insights into what they are most concerned about.

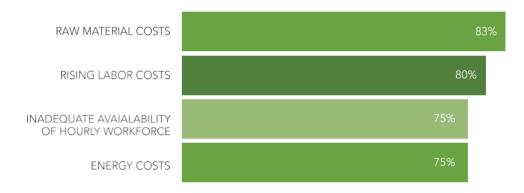
The first question asked participants to rate 14 different factors that are currently impacting their business.



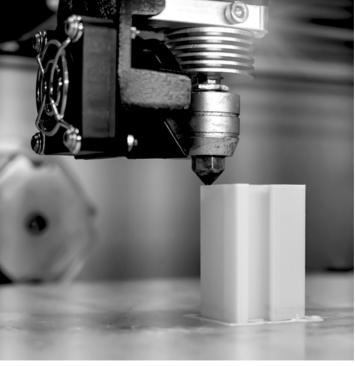
THE FOLLOWING ISSUES WILL LIMIT GROWTH OVER THE NEXT FIVE YEARS

The second question asked participants to rate 19 different factors they believe may limit their growth over the next five years. Raw Material costs, healthcare costs, rising labor costs, and workforce availability stand out from the balance of issues.

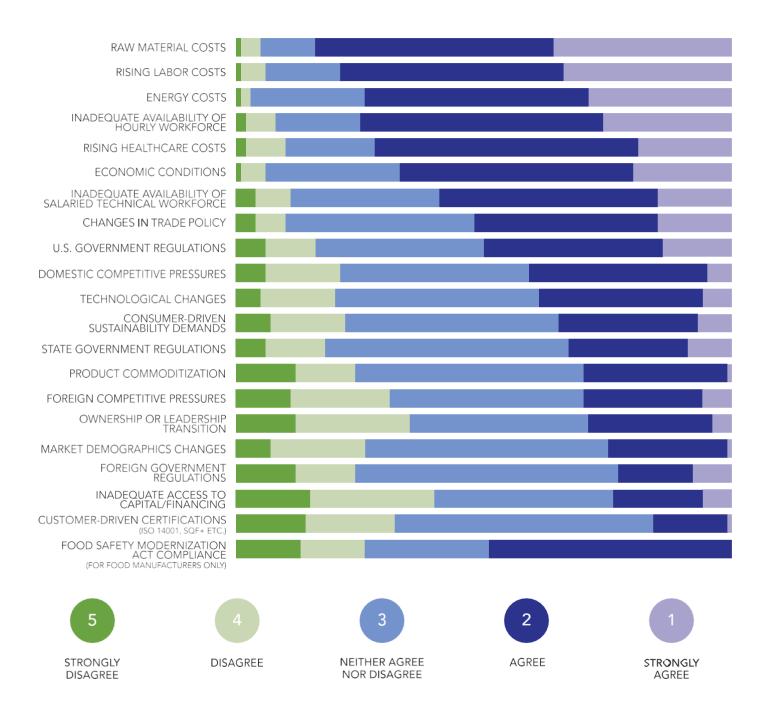
TOP 4 INDICATED LONG TERM ISSUES







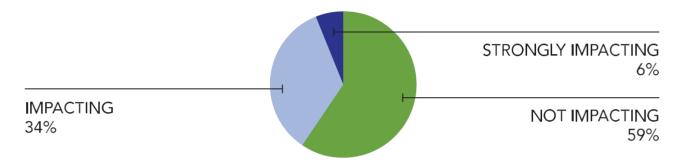
THE FOLLOWING ISSUES WILL LIMIT GROWTH OVER THE NEXT FIVE YEARS



COVID-19

The COVID pandemic caused a shift in manufacturing. While a majority of manufacturers have been able to adapt to these changes, there are still manufacturers feeling the impact from the pandemic.

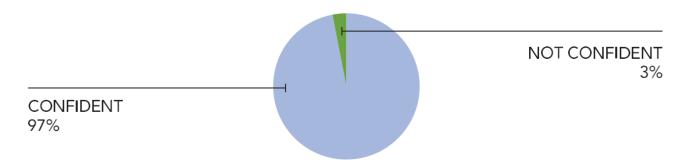
IS THE COVID PANDEMIC STILL IMPACTING YOUR BUSINESS?



COMPANY PERFORMANCE

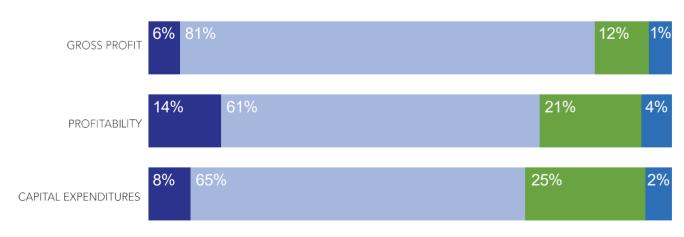
Despite concerns about the overall economy, Kansas manufacturing leaders remain confident about their company's future performance.

HOW DO YOU FEEL ABOUT THE FUTURE FOR YOUR COMPANY





COMPARED TO 2021, DO YOU EXPECT YOUR COMPANY'S PERFORMANCE TO CHANGE?



NOT SURE

INCREASE

STAY THE SAME

Workforce

THE WORKFORCE NEED

As indicated earlier in the report, manufacturers are deeply concerned about finding and hiring skilled talent.

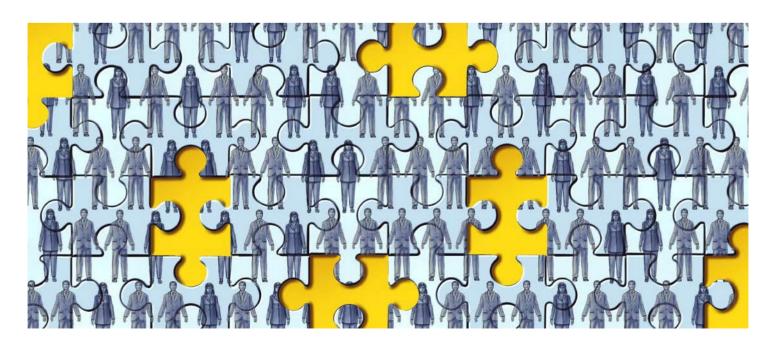
Companies' growth is being restricted because they cannot find the right people, with the right skills, in the right jobs.

In the next three years, 47% of manufacturers report that up to 15% of their workforce will retire. That is an 11% increase over 2021. 16% of manufacturers say it will be more than 15%. Add these retirements to the current and growing skills gap and it's a potential crisis in the making we need to address.

(Do you have a plan to capture the tribal knowledge of these experienced workers?)

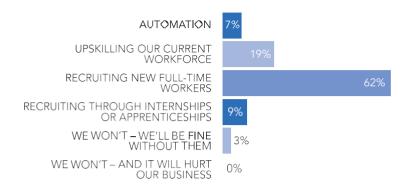
HOW MUCH OF YOUR WORKFORCE WILL BE RETIRING OVER THE NEXT 3-YEARS?





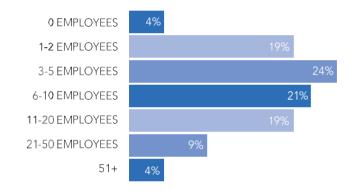
HOW WILL YOU REPLACE THOSE WORKERS?

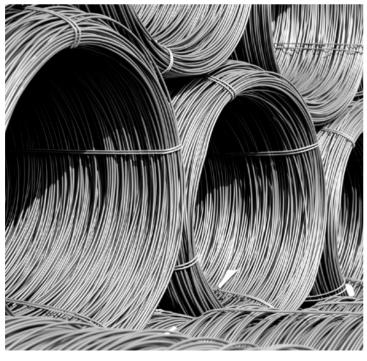
62% said they will replace retiring workers through recruitment. With competition for skilled workers at a high level, alternative methods of attracting employees will be required.



FINDING EMPLOYEES

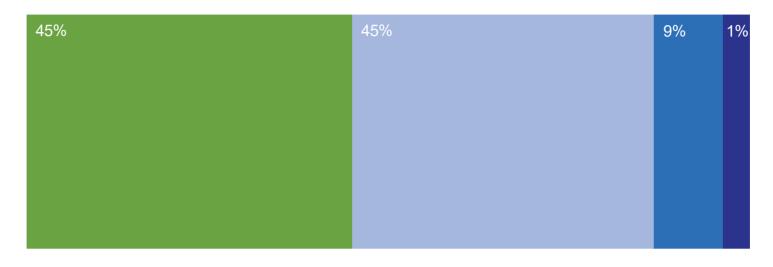
How many employees do you believe you will hire over the next 12 months because of business growth?





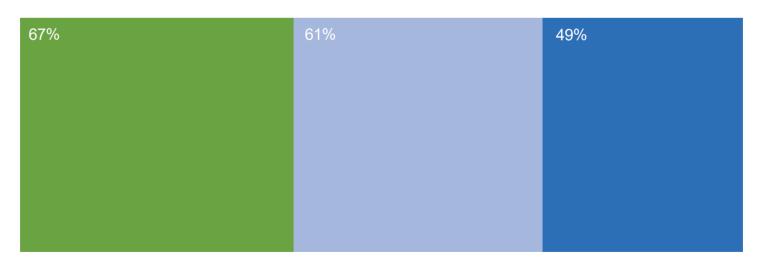


HOW DIFFICULT IS IT TO ATTRACT QUALIFIED CANDIDATES FOR YOUR COMPANY'S VACANCIES?



- VERY DIFFICULT
- SOMEWHAT DIFFICULT
 - NOT TOO DIFFICULT
- NOT DIFFICULT AT ALL

WHAT ARE THE THREE BIGGEST CHALLENGES YOUR COMPANY FACES IN HIRING QUALIFIED CANDIDATES?



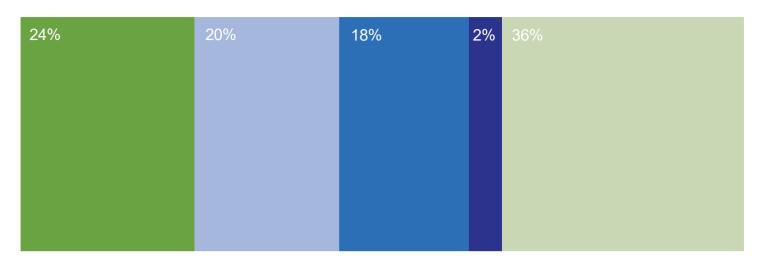
Manufacturers selected their top three challenges they face in their hiring process. 67% said candidates they try to hire have a lack of work ethic, commitment, or interest.

LACK OF WORK ETHIC / COMMITMENT / INTEREST

LACK OF APPLICANTS FOR OUR POSITIONS

APPLICANTS DO NOT HAVE THE NEEDED SKILLS OR EDUCATION

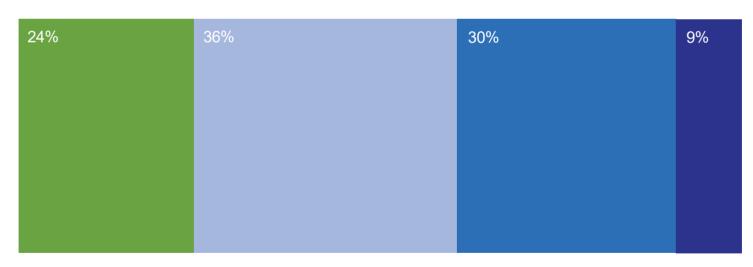
WHICH TYPE OF EMPLOYEES ARE YOU ACTIVELY SEARCHING FOR?



Locating the right employees is proving to be a difficult challenge. 36% indicated they are looking for employees who fit a large spectrum of abilities.

- ENTRY-LEVEL, UNSKILLED EMPLOYEES
- EMPLOYEES WITH TECHNICAL TRAINING
- EMPLOYEES WITH TECHNICAL TRAINING AND EXPERIENCE
 - EMPLOYEES WITH FOUR-YEAR COLLEGE DEGREES
 - ALL OF THE ABOVE

WILL THE SHORTAGE OF QUALIFIED WORKERS AFFECT YOUR COMPANY'S BOTTOM LINE AND ABILITY TO MEET YOUR GROWTH PLAN IN THE COMING YEAR?



With open positions, productivity is negatively impacted as well as an increase in expenses recruiting and training new hires. 60% believe the gap will impact their ability to meet their company's business plans.

YES, A LOT YES, A LITTLE

MAYBE / TOO SOON TO TELL

NO

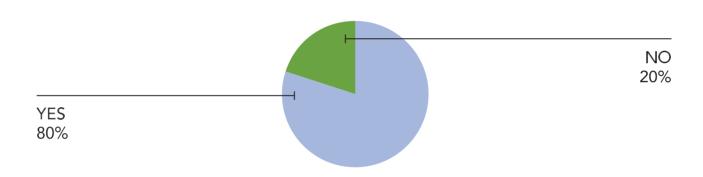


Resources

IF THERE IS A NATIONAL DATABASE OF MANUFACTURERS CREATED FOR A "BUY AMERICAN" SUPPLY CHAIN PROGRAM, WOULD YOUR COMPANY PARTICIPATE?

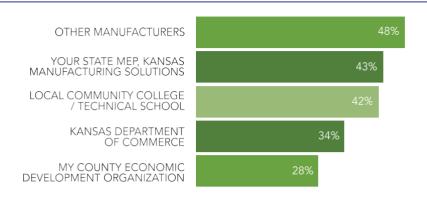
During the COVID-19 Pandemic and the supply chain challenges that followed, it was realized the United States lack a comprehensive database of manufacturers. There are efforts in place to create a national database of manufacturers, and KMS is engaged to assist this program at the state level. 80% of manufacturers indicated they are willing to participate in this database.

A national database could benefit manufacturers for supply chain efficiencies, promotion of innovation, and enhanced collaboration.



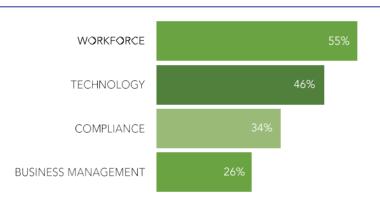


WHAT ORGANIZATION(S) HAVE YOU FOUND HELPFUL IN ASSISTING YOUR COMPANY?



IN WHAT AREAS DO YOU TYPICALLY SEEK OUTSIDE HELP? (PLEASE SELECT UP TO THREE)

The top four topics that manufacturers seek resources to help them with are:



HAS YOUR BUSINESS UTILIZED LOCAL OR STATE INCENTIVES? (SELECT ALL THAT APPLY)

Almost half (of the manufacturers indicated they have utilized state incentive programs.



Conclusion

An evolution in manufacturing is taking place. As we continue to emerge from the pandemic, things are not the same as they were. Like the ripples that develop outward from a pebble dropped into a still body of water, the pandemic created ripples in manufacturing that are still expanding. One-third of the manufacturers who participated in the questionnaire are still struggling to get past the pandemic.

The pandemic accelerated the need for rapid innovation, process improvement, supply chain alternatives, and new methods of retaining and attracting employees.

To compete effectively in domestic and global marketplaces, small and medium sized manufacturers must keep up with the rapidly evolving changes, be more effective, efficient, and self-sufficient, filling in gaps by leveraging regional resources, accelerating growth

through technology, and cultivating the next generation of workforce.

We see in the questionnaire results some strategies and efforts represent works in progress, while others need to be addressed. Manufacturing influencers, elected officials, and leaders of organizations serving manufacturers need to support those efforts, with acute focus on awareness and access to technology resources, career pathways, and supply chain resiliency.

Benjamin Franklin said, "Out of adversity comes opportunity".

The best indicator from the 2022 questionnaire results is despite these difficult headwinds in recent years, manufacturers indicated largely they are confident about the future for their companies.

Kansas Manufacturing Solutions has numerous partnerships across Kansas and the United States to support Kansas manufacturing.

Strategic advocacy partners include the Kansas Department of Commerce and the National Institute of Science and Technology Manufacturing Extension Partnership (NIST MEP). As the Kansas representative of the NIST MEP National Network, KMS has unique access to 50 peer organizations across the country who can provide resources, assets, supplier scouting opportunities, and more for Kansas manufacturers.

Sub-recipient partners leverage their resources and our resources to meet common goals of growing manufacturing in Kansas. These partners are:









KMS works with manufacturing support organizations crucial to the development of the Kansas manufacturing industry and the communities with which they serve. Some of these partners include:

KANSAS CHAMBER OF COMMERCE

KANSAS MANUFACTURING COUNCIL

KANSAS CITY MANUFACTURING NETWORK

KANSAS CITY CHAMBER OF COMMERCE

WICHITA REGIONAL CHAMBER OF COMMERCE

WICHITA MANUFACTURERS ASSOCIATION

K-STATE TECHNOLOGY DEVELOPMENT INSTITUTE

FAIRFAX INDUSTRIAL ASSOCIATION

WORKFORCE PARTNERSHIP

KANSAS ECONOMIC DEVELOPMENT ALLIANCE

WESTERN KANSAS MANUFACTURERS
ASSOCIATION

CENTRAL KANSAS MANUFACTURING ASSOCIATION

SEK, INC

OLATHE CHAMBER OF COMMERCE

LENEXA CHAMBER OF COMMERCE

GREAT BEND CHAMBER OF COMMERCE