



**MAPP**  
MANUFACTURERS ASSOCIATION  
FOR PLASTICS PROCESSORS

# Plastics Benchmarking

POWERED BY **HR** | HARBOUR  
RESULTS INC.

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# Purpose and Methodology

Harbour Results, Inc. regularly conducts market research within the manufacturing industry to examine key trends, benchmarks, and forecast indicators. More than 90 companies totaling 140 plastics processing facilities participated in this study from April to July 2021. The HRI team carefully analyzed the data from this study and reached out to companies when questions arose. In appreciation of your facility taking the time to be involved in this report, HRI is providing this output for personal use. If any questions, comments, or suggestions arise when reading the following content, please reach out to the following individuals:

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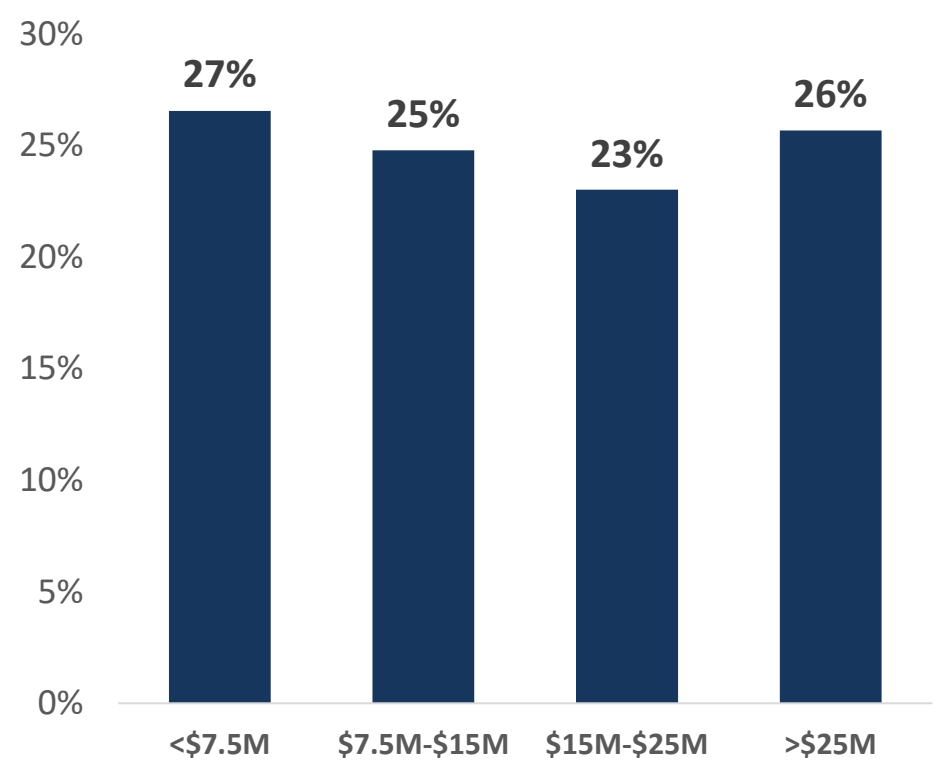
**Laurie Harbour**

HRI President and CEO

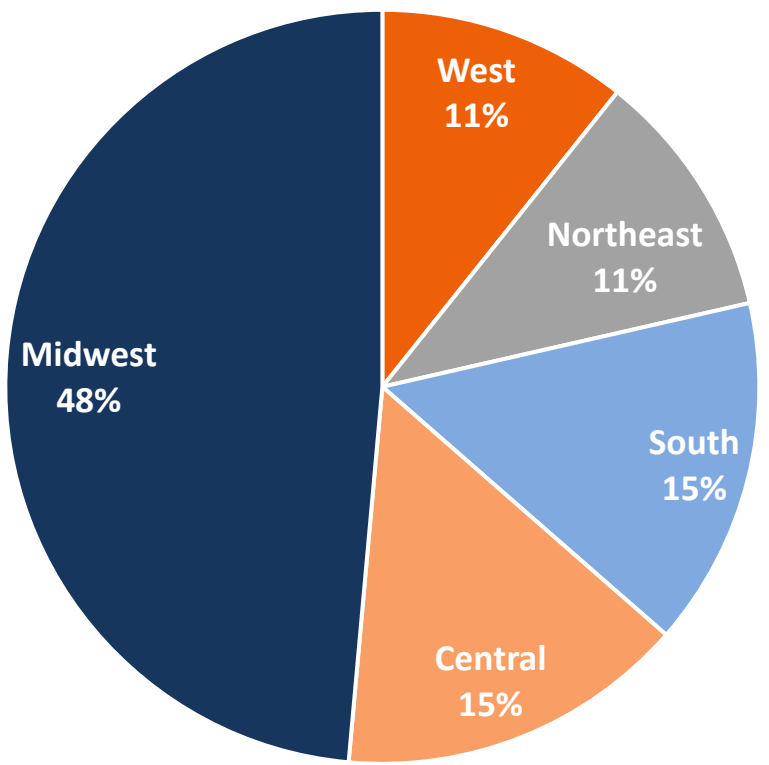
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# Respondent Demographics: 140 Facilities

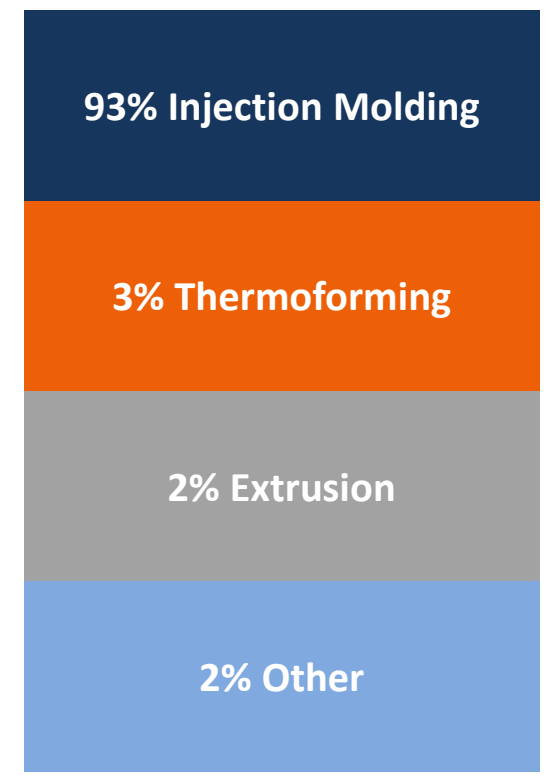
Revenue Range



Region



Process Type



Questions: What was your annual revenue? What is your Facility's Primary Focus? Please identify your company's geographic location. Source: Harbour Results.



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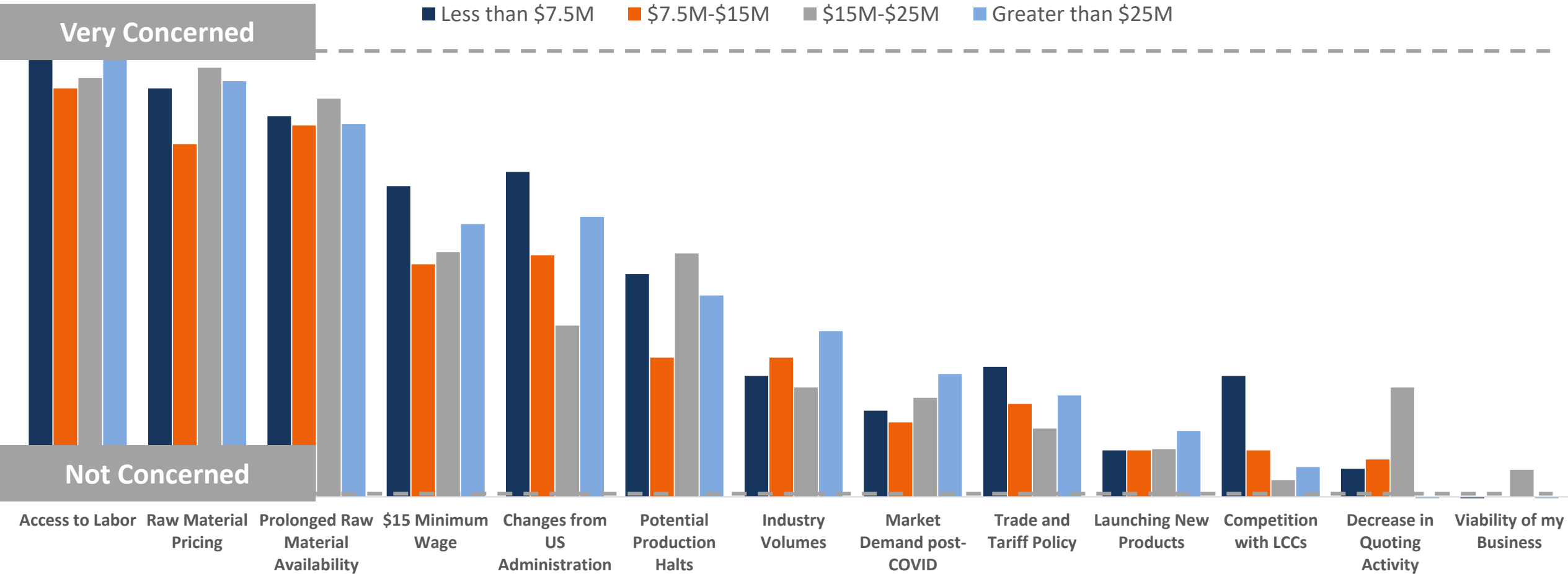
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## Industry Pulse

# Raw Material Remains a Pressing Issue

Plastic Processor Top Concerns



Question: Thinking about the future of your business, please rate your level of concern in the following areas...  
 Source: Harbour Results.



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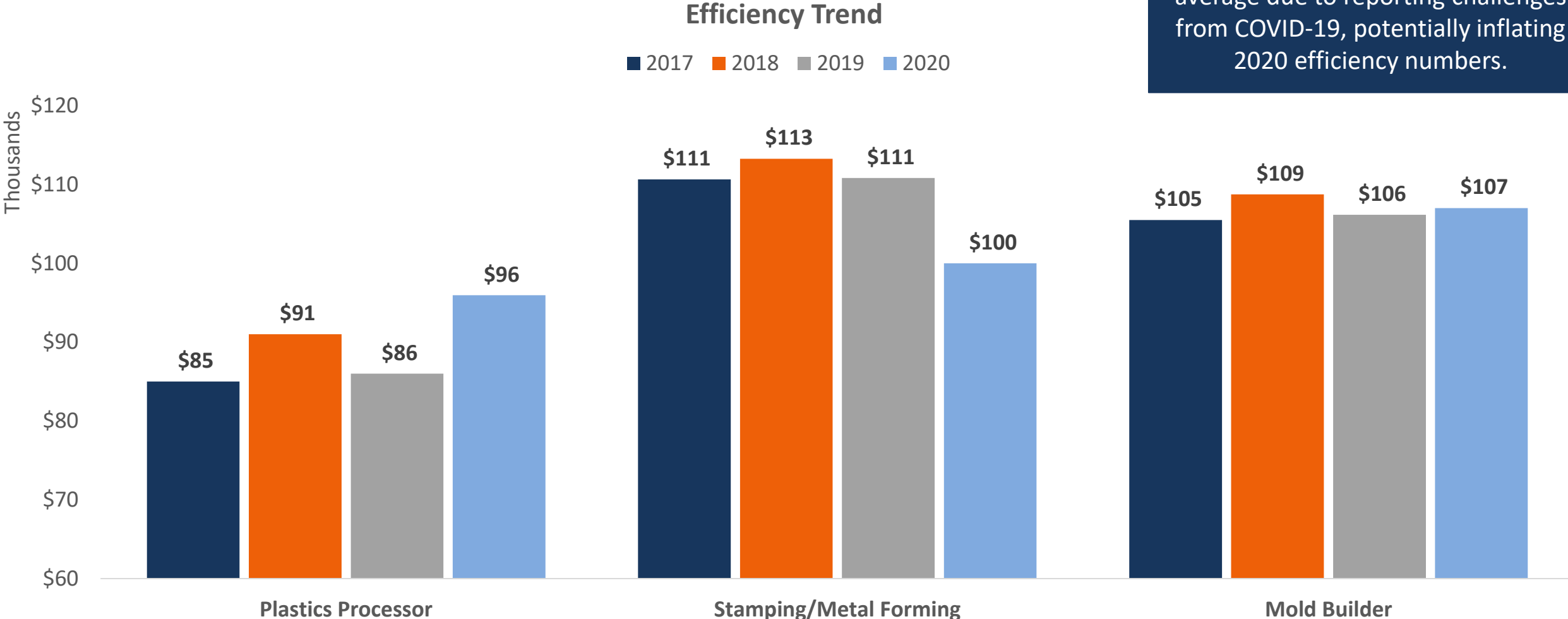
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## Financial Metrics

# Plastics Efficiency Up but Still Low

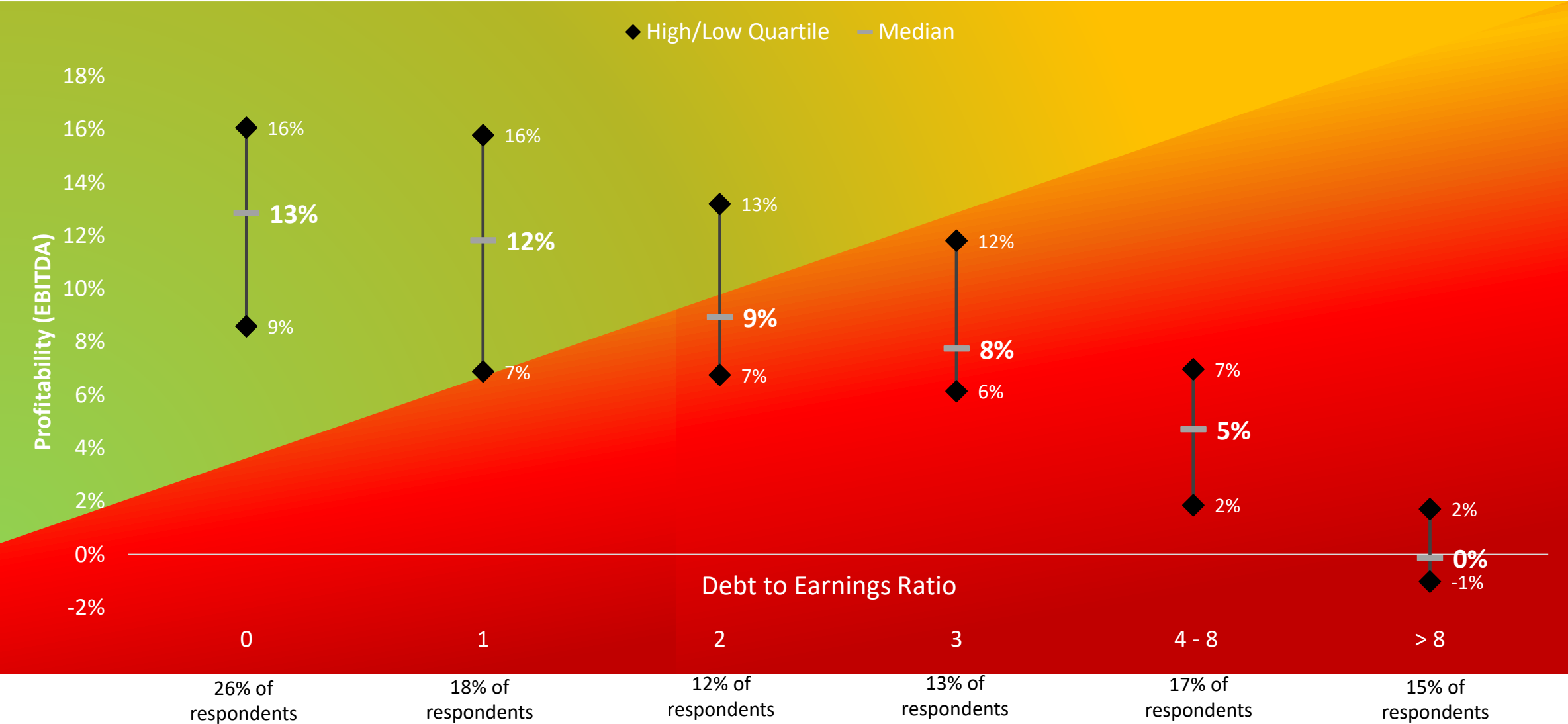
Note: The 2020 equation used FTE at of the end of the year instead of the average due to reporting challenges from COVID-19, potentially inflating 2020 efficiency numbers.



Equation: Efficiency = ( Revenue – Materials – Subcontracting ) / ( Full Time Equivalent Employees ). Region: North America. Source: Harbour IQ.



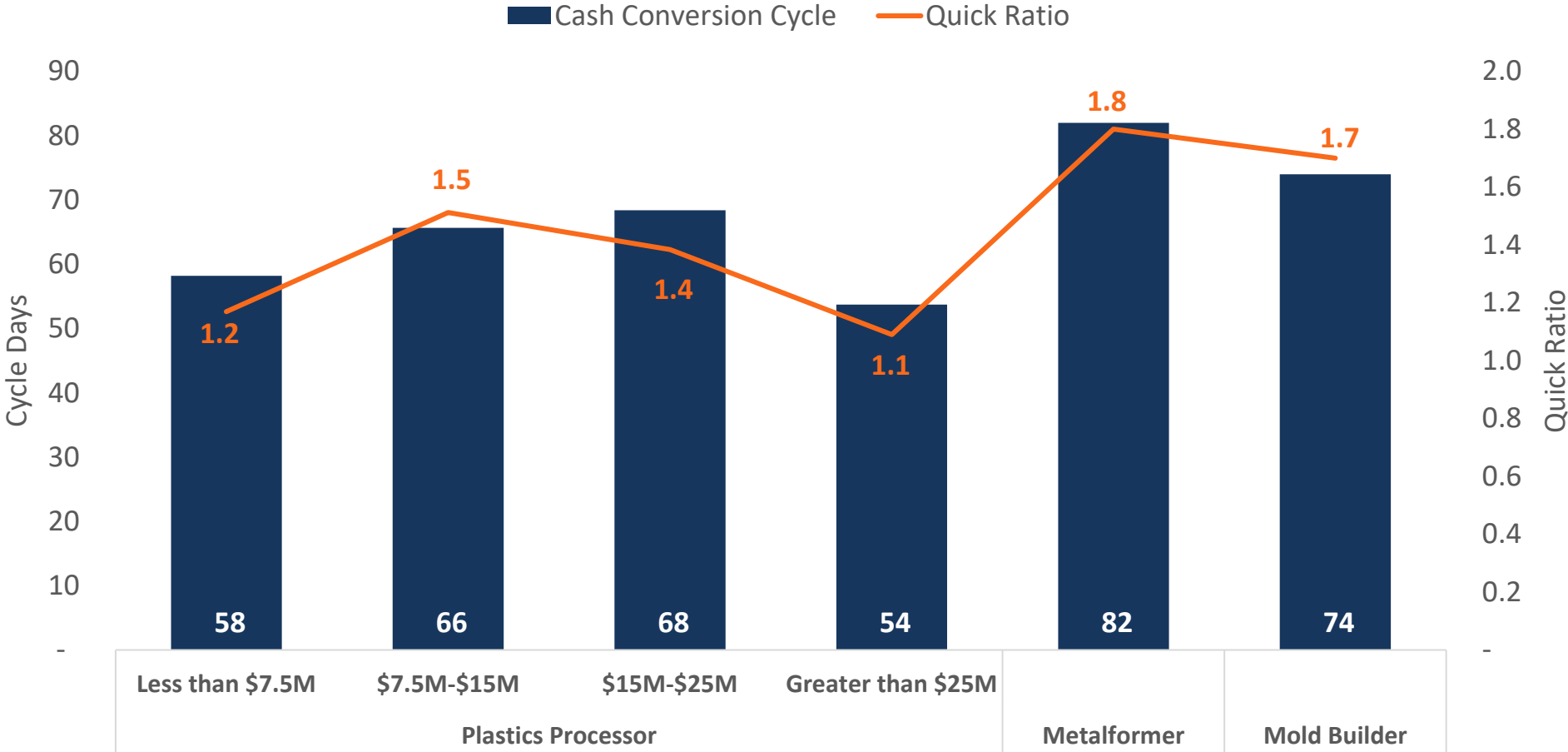
# Profitability Aligns with Debt to Earnings Ratio



Equation:  $Debt\ to\ Earnings\ Ratio = Total\ Debt / EBITDA$ . Region: North America. Source: Harbour Results.

# Plastics Liquidity is Healthy

Cash Conversion Cycle Days vs Quick Ratio



The cash conversion cycle and the quick ratio together tell us how well a company is managing capital needs by converting work to cash.

Across revenue ranges and processes, the cash conversion cycle and quick ratio are well aligned. A larger gap between the two numbers, implying they have significant cash tied up and are less liquid.

Equation: Cash Conversion Cycle = 365 \* (( Inventory – AP ) / COGS + AR / Revenue ).  
 Quick Ratio = ( Current Assets – Inventory ) / Current Liabilities. Region: North America. Source: Harbour Results.



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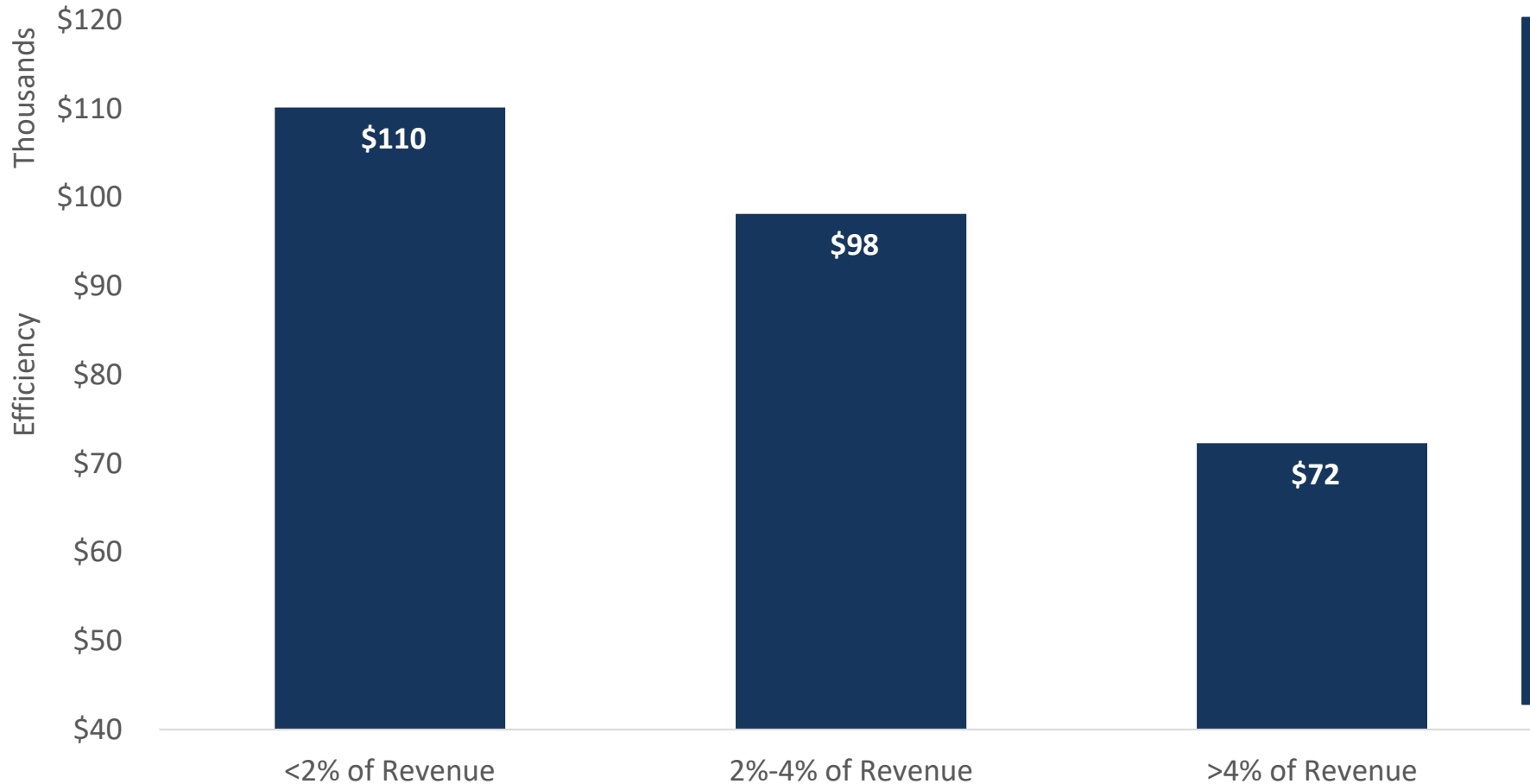
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## Operations

# Bad Process Capability is Lost Profit Opportunity

2020 Efficiency by Internal Scrap % of Revenue



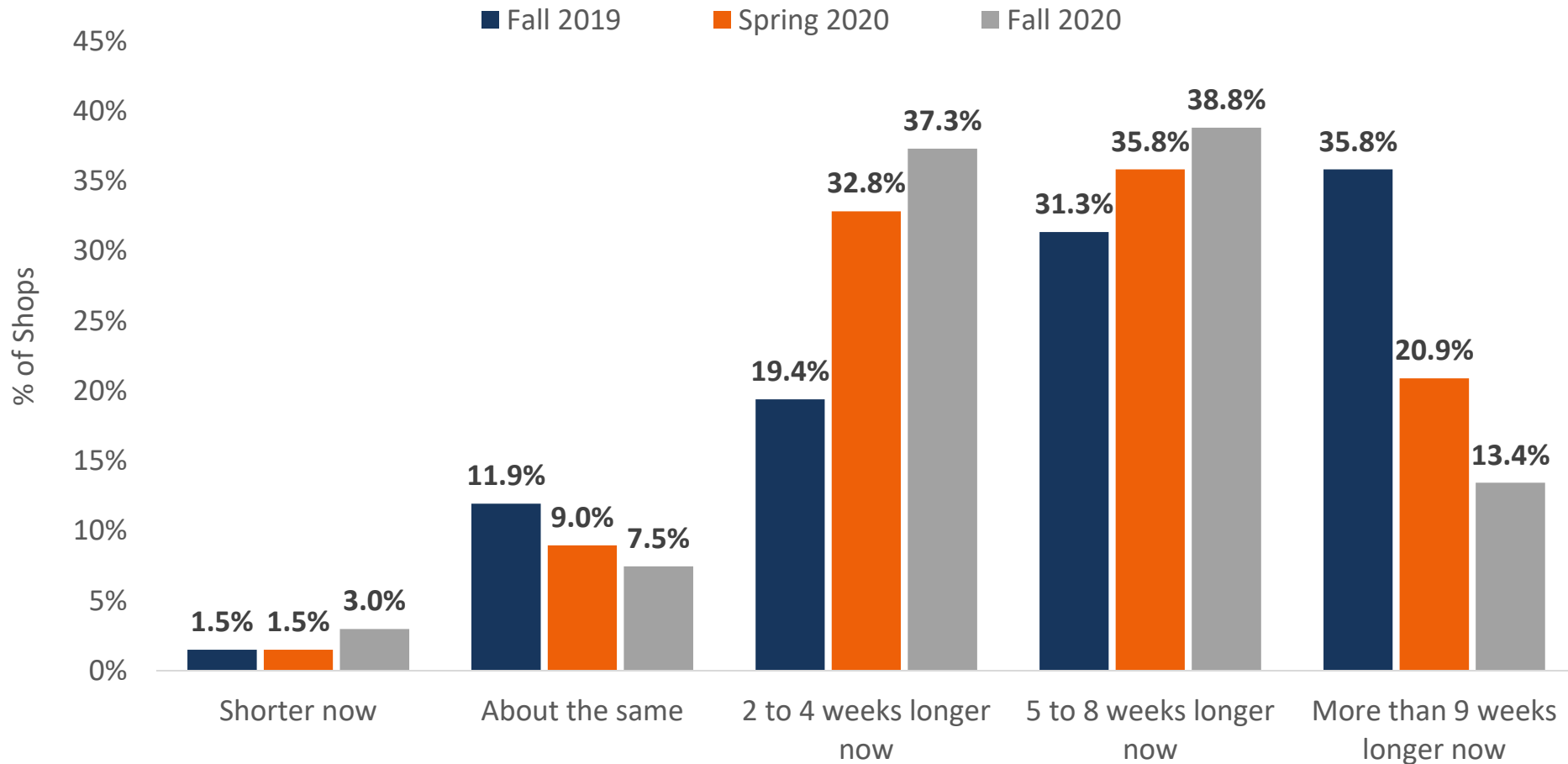
The population of plastics processors were separated according to their respective ranges of internal scrap rate and then efficiency was calculated.

The data shows that producers with strong processes and low overall scrap percentages execute at a higher efficiency.

Calculation:  $Efficiency = (Revenue - Materials - Subcontracting) / (Full\ time\ Equivalent\ Employees)$ . Questions: What was your facility's scrap rate as a percent of revenue in 2020? Source: Harbour Results.

# Most Shops Report Longer Lead Times

## Material Lead Time Comparison



Most respondents reported longer material lead times now than previous quarters.

35.8% were reporting lead times more 9 weeks longer than what they were in Fall 2019, making the on-time delivery difficult.

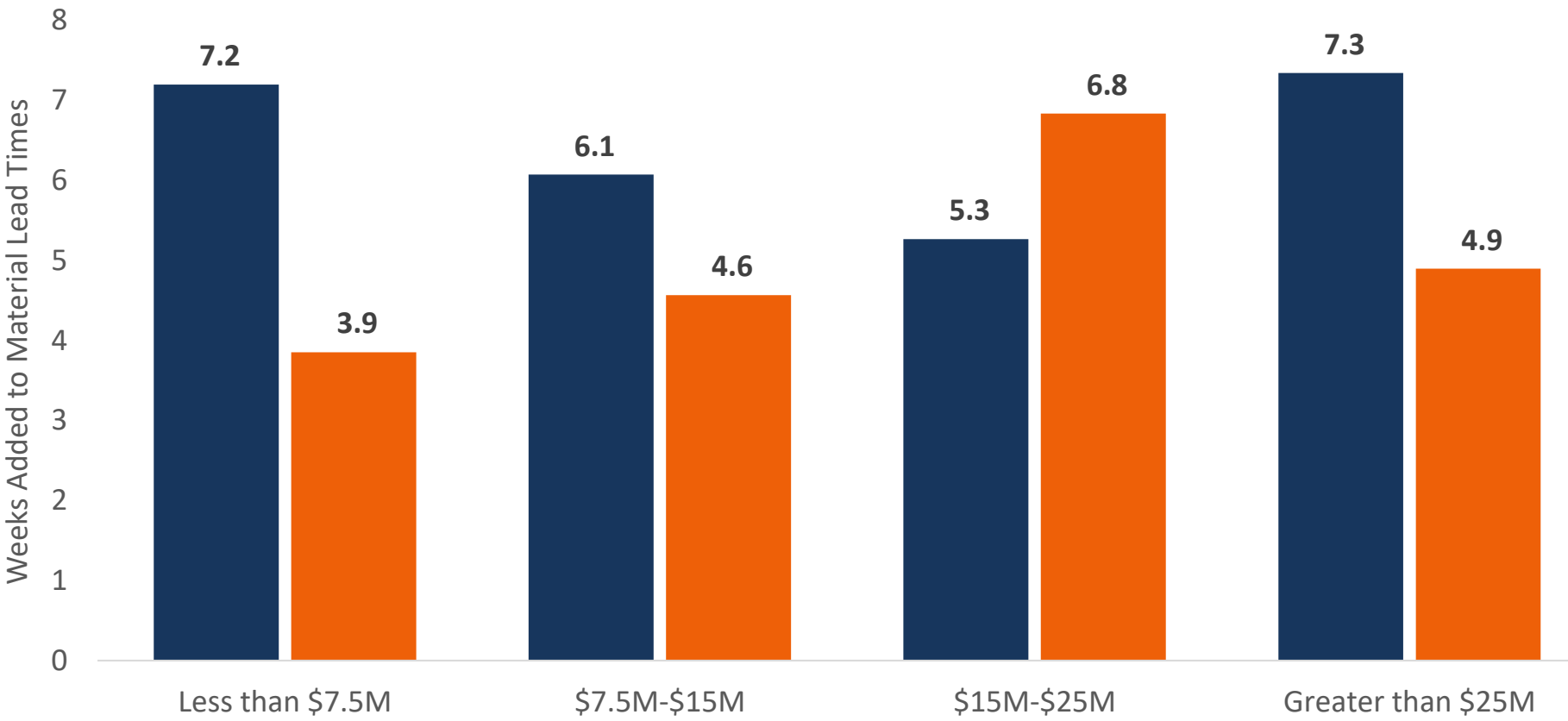
Supply chain issues will be the theme of 2021, with disruptions coming from ports, material shortages, and air freight delays.

Questions: Thinking about current material lead time, is it longer or shorter now than the following time frames? Source: Harbour Results.

# Material Lead Times up Across the Board

Material Lead Time Increase  
Spring 2021 vs Fall 2020

■ Plastic Processors ■ Metalformers



Even though demand is strong, supply chain issues and labor shortages appear to be 2021's greatest challenges.

Lead times were up across molding and stamping in 2021 compared to 2020. Supply chain issues stemming from COVID-19 recovery have impacted resin and metal availability and prices. Plastics processors have had lead times more than 3 weeks longer than stampers of similar sizes.

Questions: Thinking about current material lead time, is it longer or shorter now than the following time frames?  
Source: Harbour Results.



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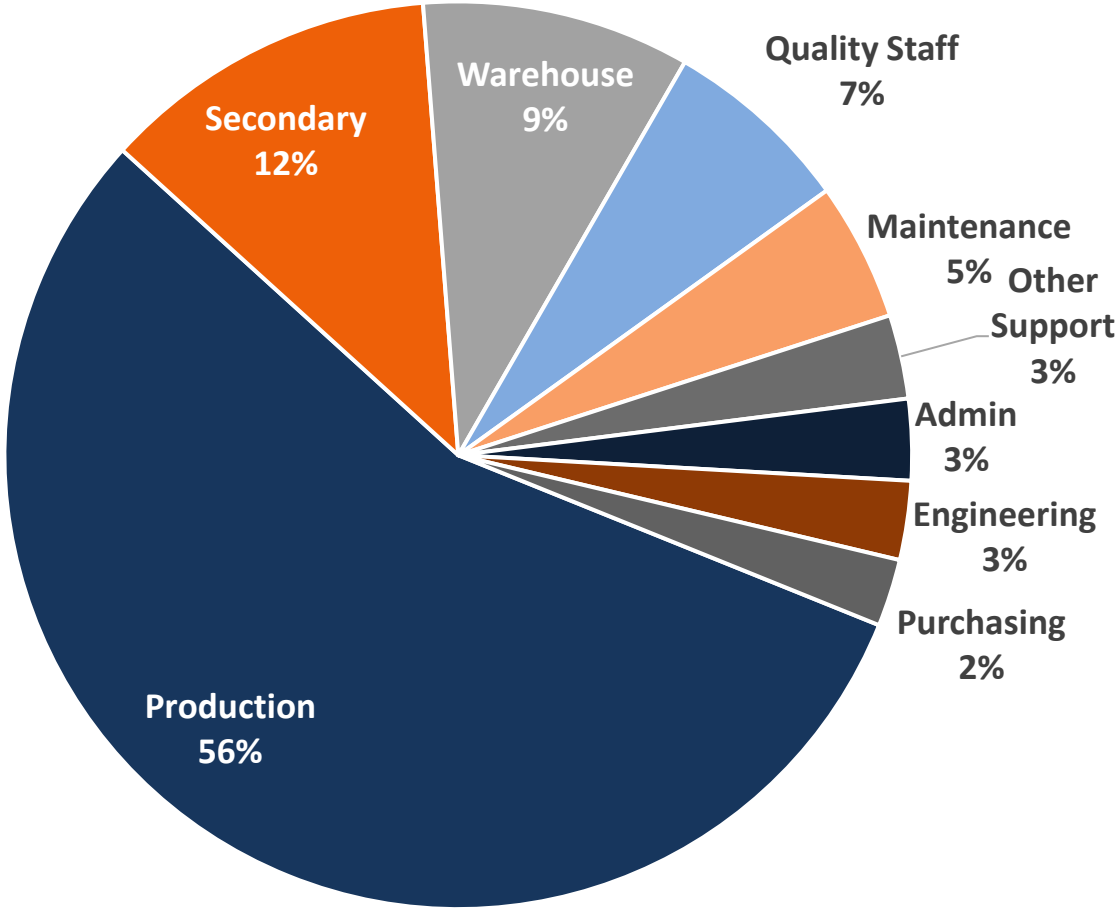
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## Workforce

# Production Represents Most Hourly Employees

Hourly Employees

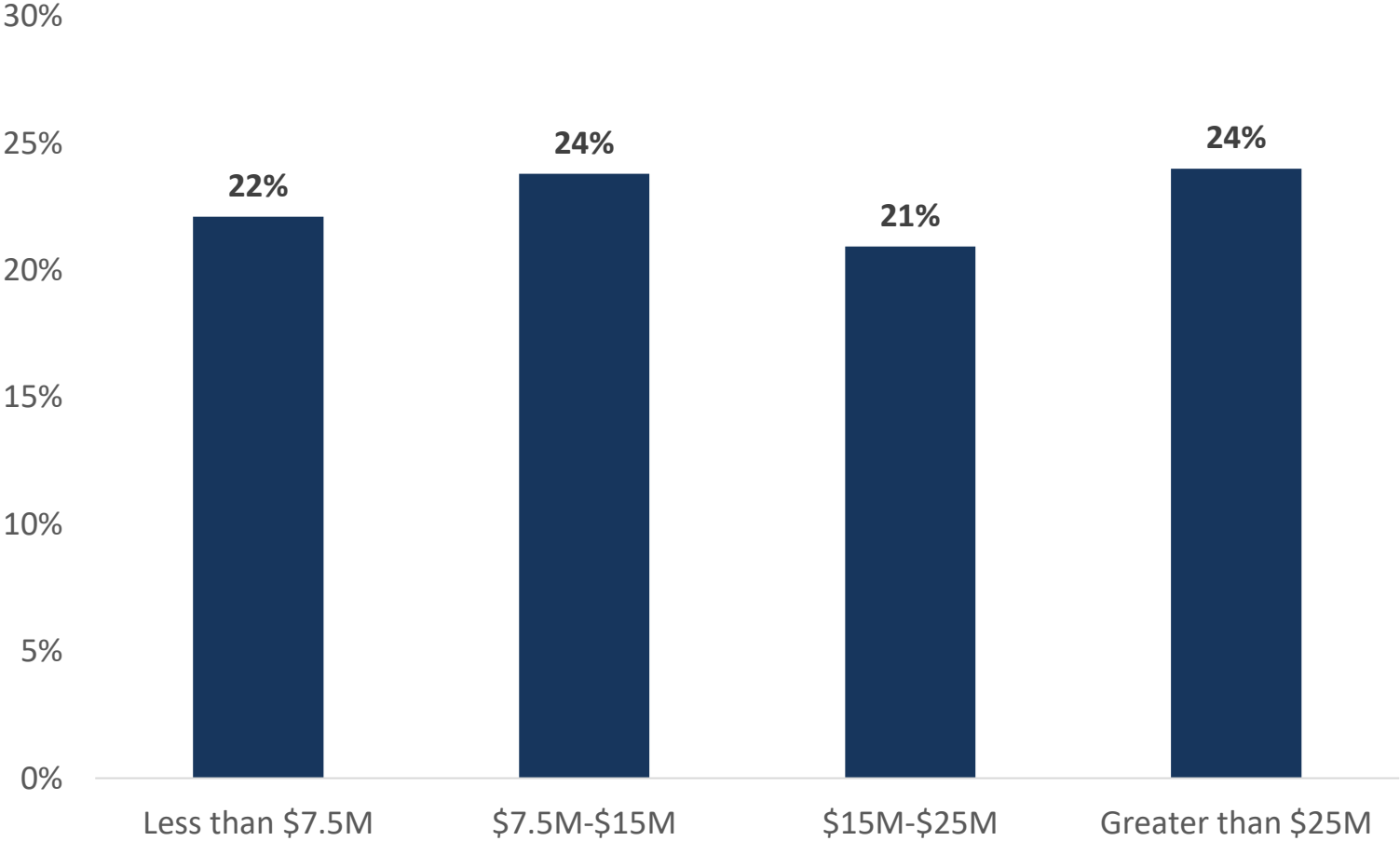


Question: How many hourly employees does your facility have in each department? Source: Harbour Results.

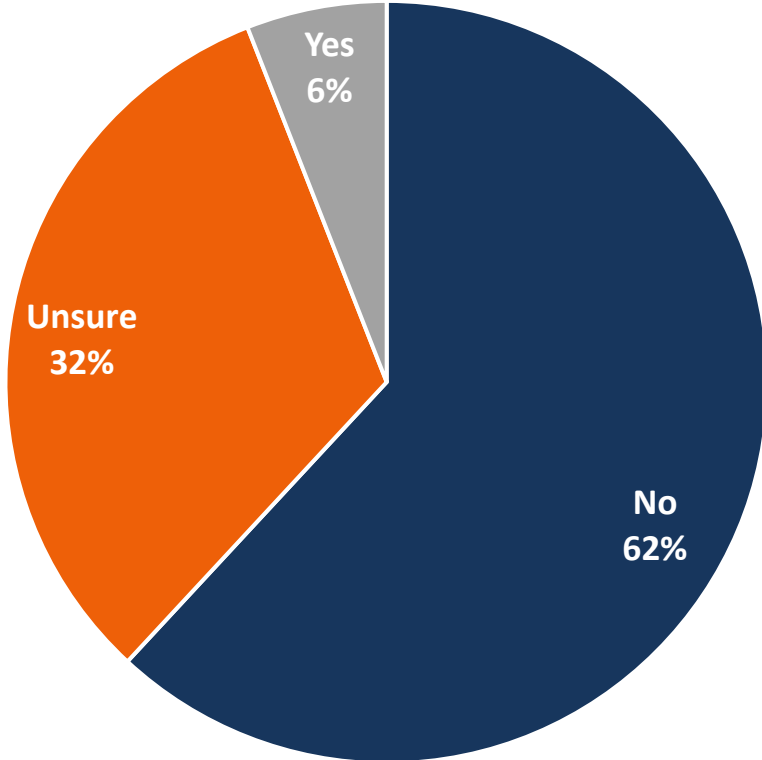


# 25% of Missed Time in 2020 was COVID Related

COVID Related % of Missed Time



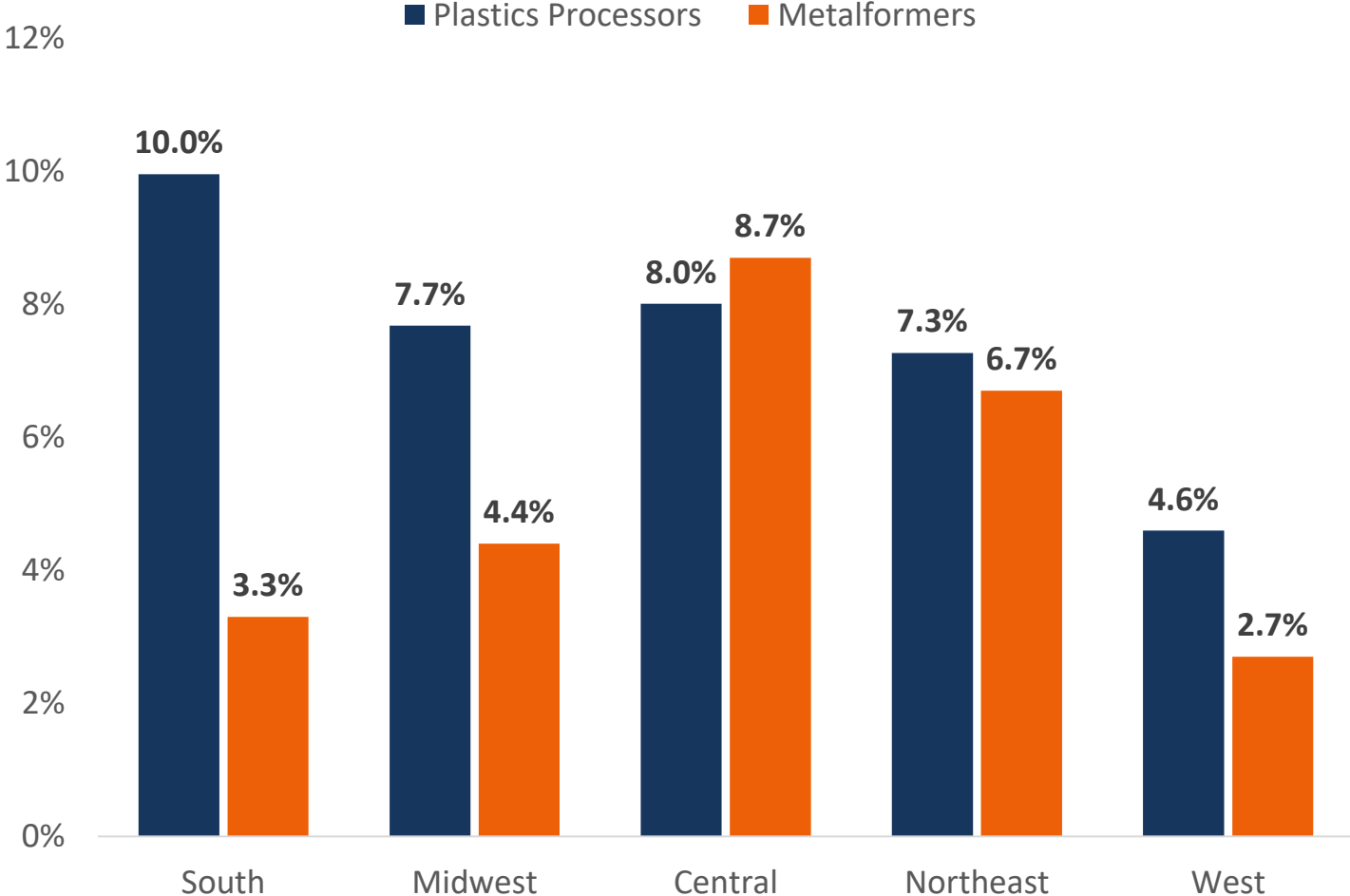
Companies Requiring COVID Vaccination



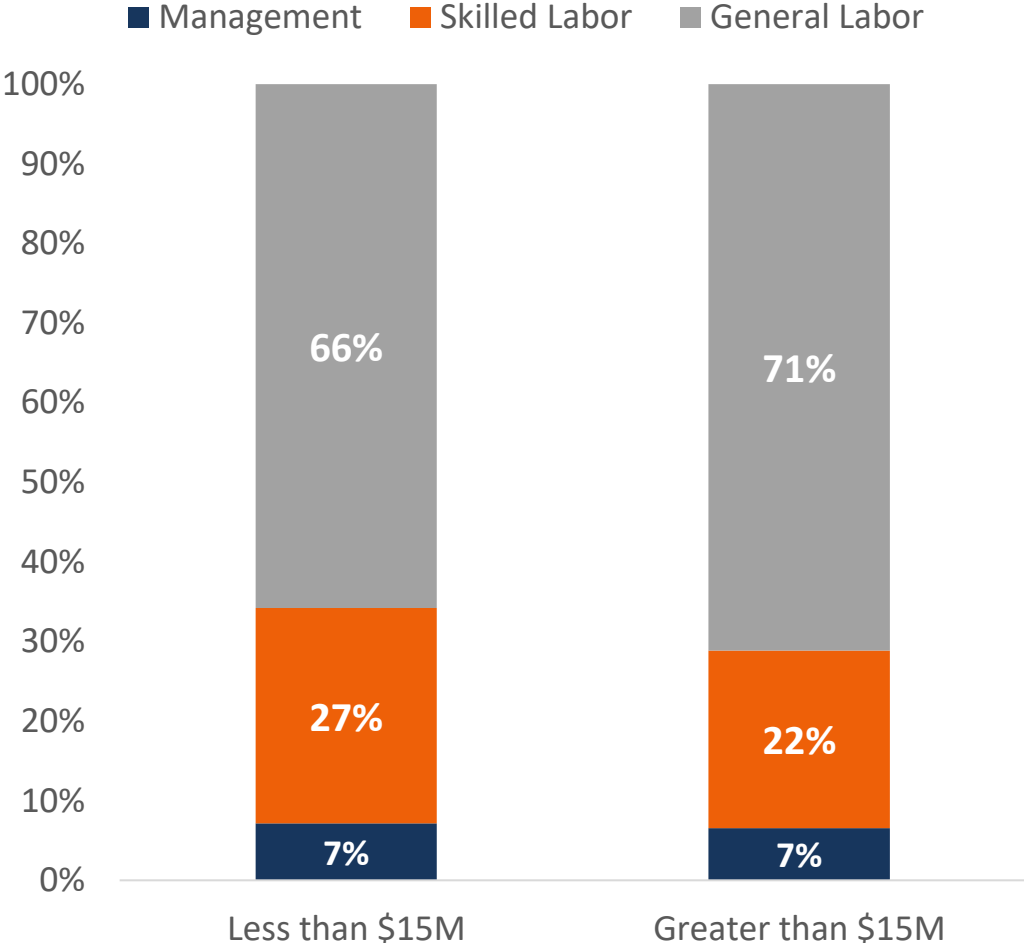
Questions: Including vacation and sick time, what percent of missed time in 2020 was COVID-19 related? If permitted by law, will your organization require employees to be vaccinated for COVID? Source: Harbour Results.

# General Labor Represents Most Open Positions

Average % of Open Positions by Region



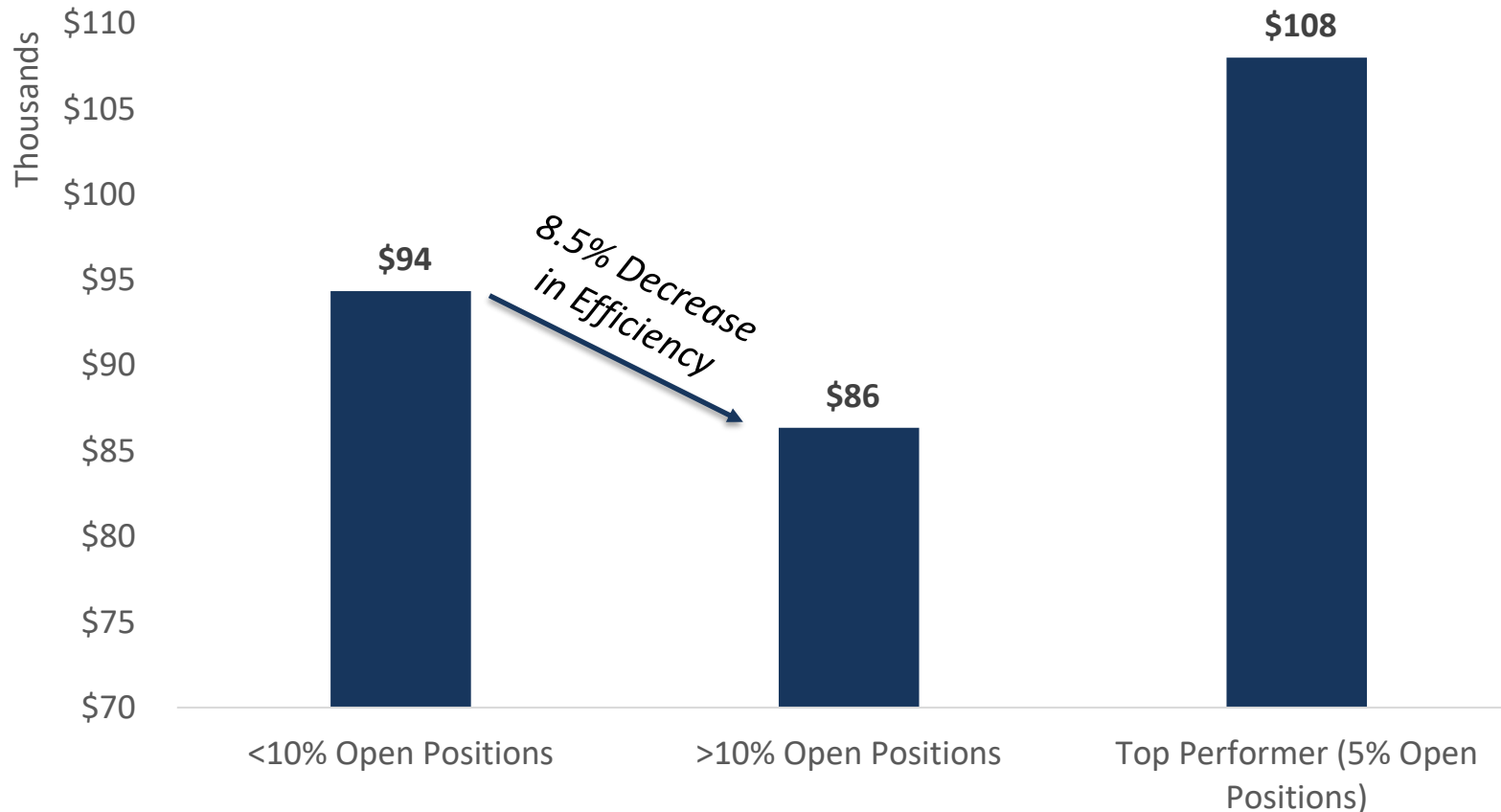
Open Position Breakdown



Questions: In an average month, how many positions are open at your facility? Source: Harbour Results.

# More Open Positions Leads to Lower Efficiency

2020 Efficiency by % of Open Positions



Shops with greater than 10% open positions were shown to be 8.5% less efficient on average.

Openings require higher OT numbers, higher temp labor usage, or both. Increasing temporary labor has been proven to decrease efficiency in an organization.

Lower utilization could also be impacted by lack of labor, i.e., missed revenue and fewer machines running because labor isn't available. This will result in OT for the employed staff to meet demands.

*Efficiency = ( Revenue – Materials – Subcontracting ) / ( Full Time Equivalent Employees ). Questions: In an average month, how many open positions are at your facility? Source: Harbour Results.*



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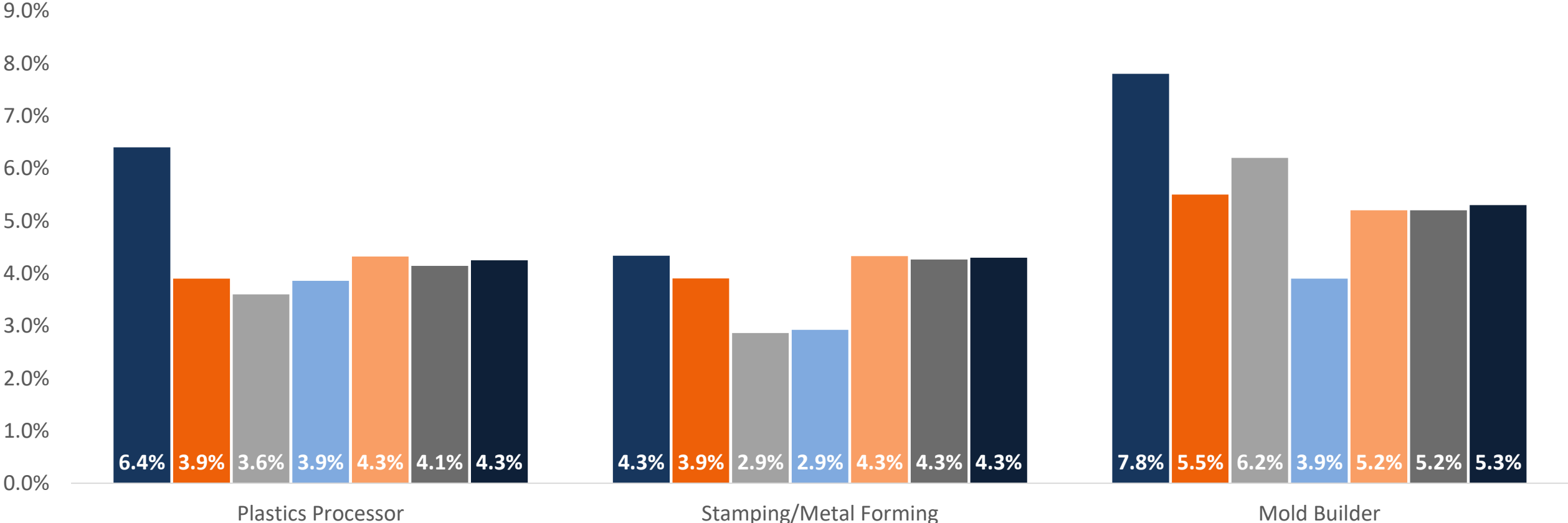
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## Capital Spend

# Plastics CapEx Consistent with 2019 and 2020

Capital Spend as a % of Revenue

2017 2018 2019 2020 2021F 2022F 2023F



Question: What was your annual capital spend and revenue? Region: North America. Source: Harbour Results.



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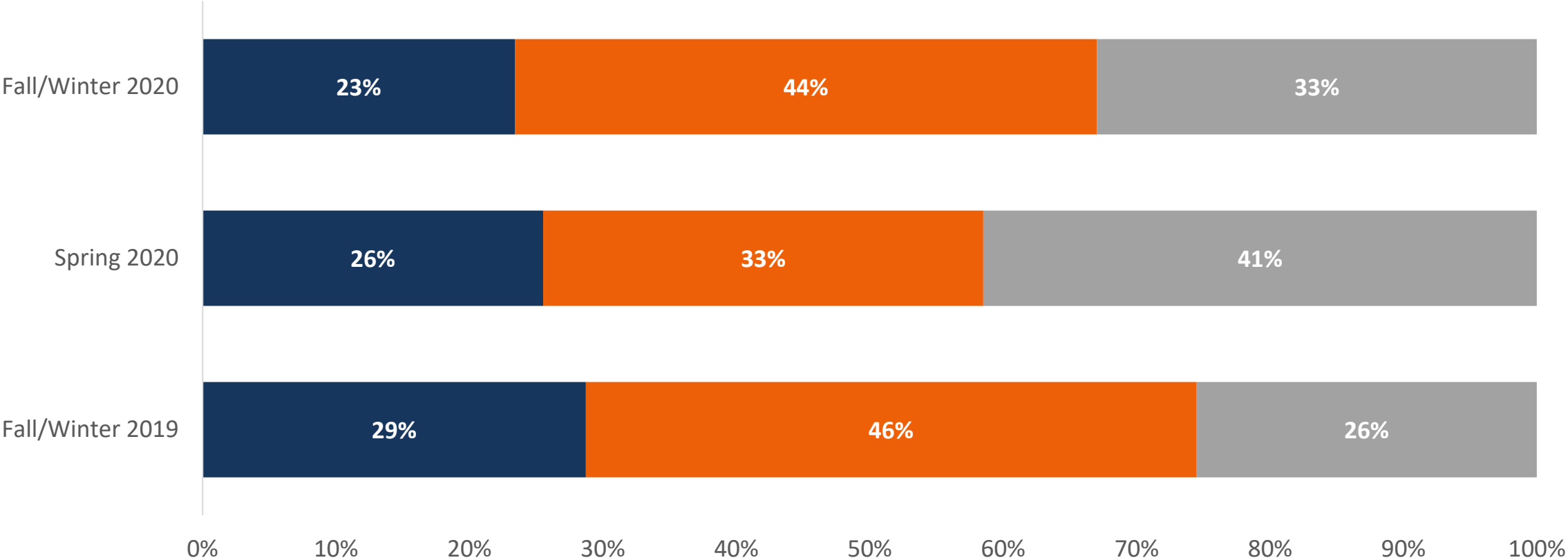
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## Sales & Quoting

# Quote Levels Have not Picked Up for Many Shops

### Quote Activity Comparison

■ Facilities Quoting Less Now than... ■ Facilities Quoting About the Same Now as... ■ Facilities Quoting More Now than...

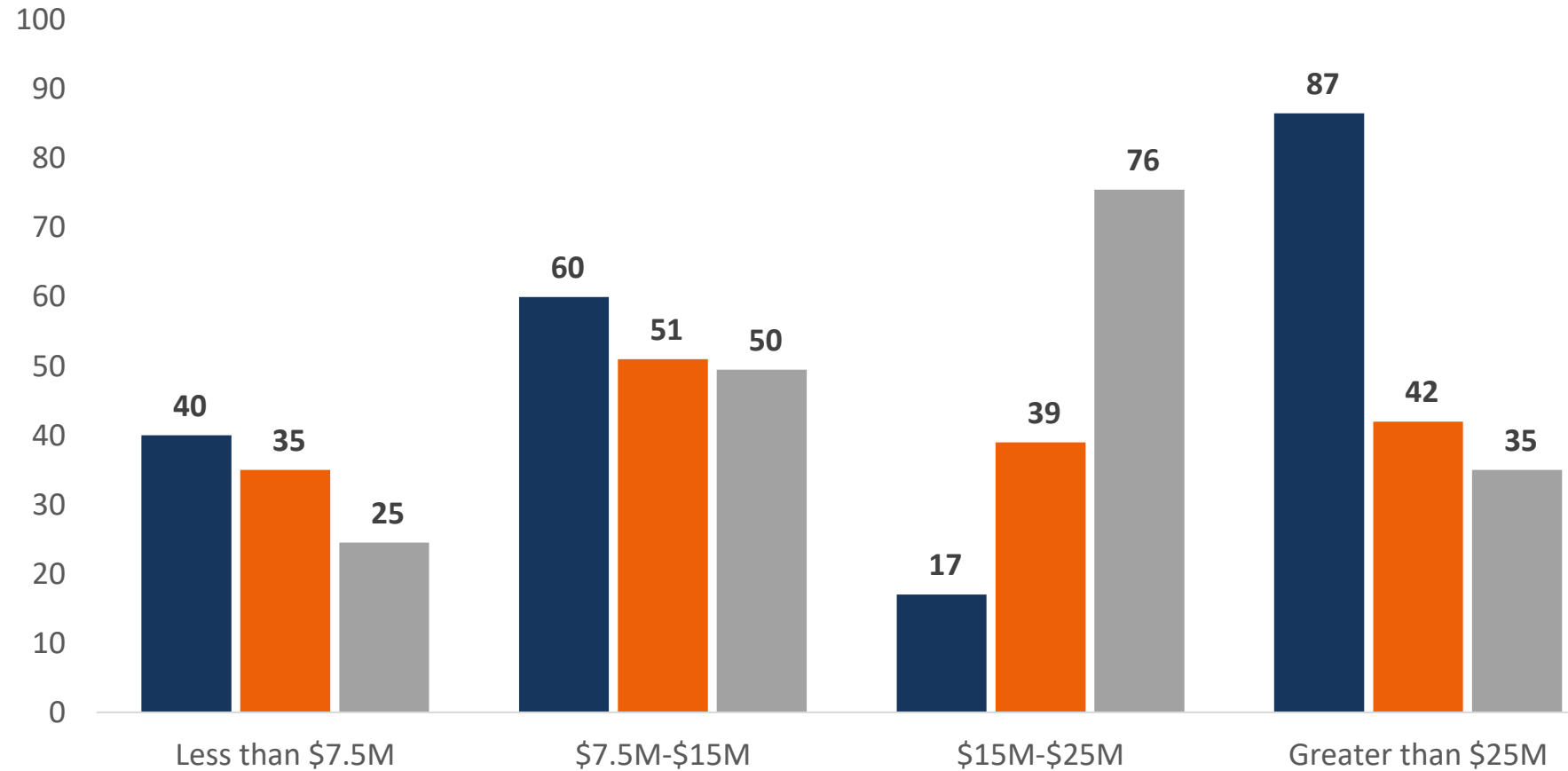


Questions: Thinking about current quote activity at your facility, please choose the rate at which you have been quoting new opportunities versus the following time frames... Source: Harbour Results

# More Customers Does Not Mean More Profit

Avg # of Customers by Profit & Revenue

■ Less than 3% EBIT   ■ 3% to 10% EBIT   ■ More than 10% EBIT



The idea of more customers seems good in practice, however managing the customer tail is important. Though \$15-\$25M shops buck this trend, overall, those with more customers have lower EBIT.

Managing the customer tail means evaluating which customers are most important to the bottom line. If a customer does not meaningfully contribute to profit but requires the same time and attention as a profit driver, is the relationship worth continuing?

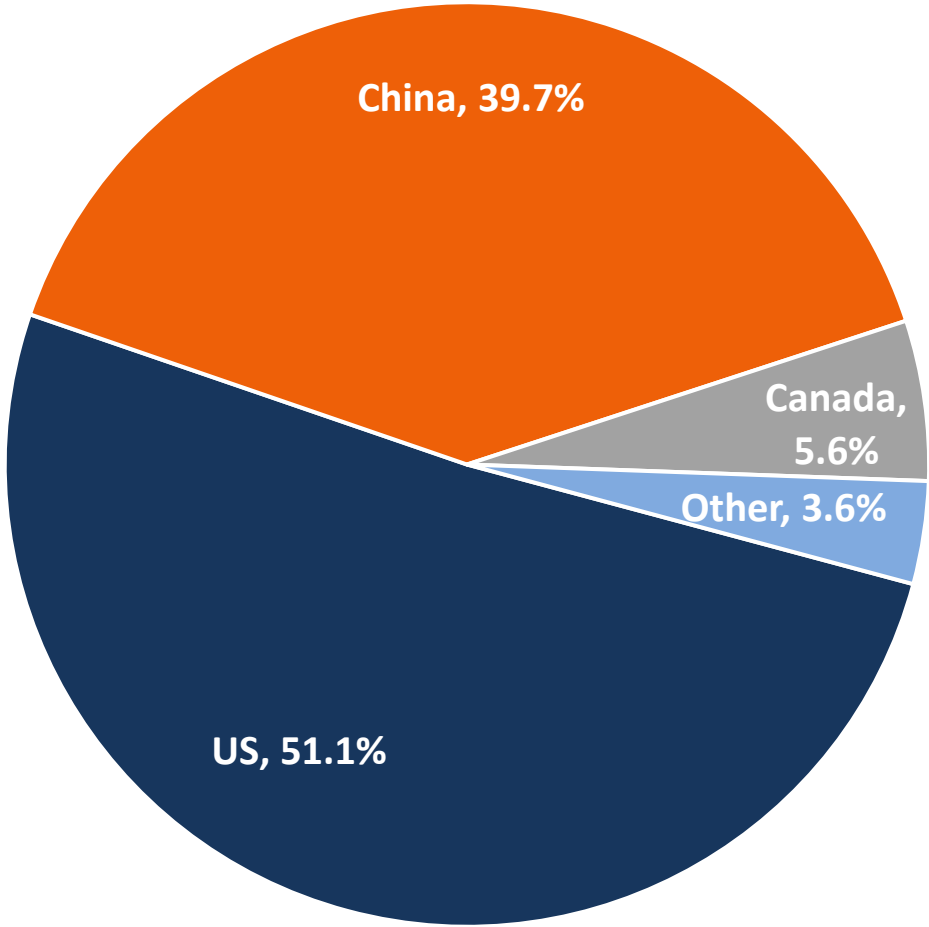
Questions: How many active customers did your facility serve in the following time frames?

Source: Harbour Results

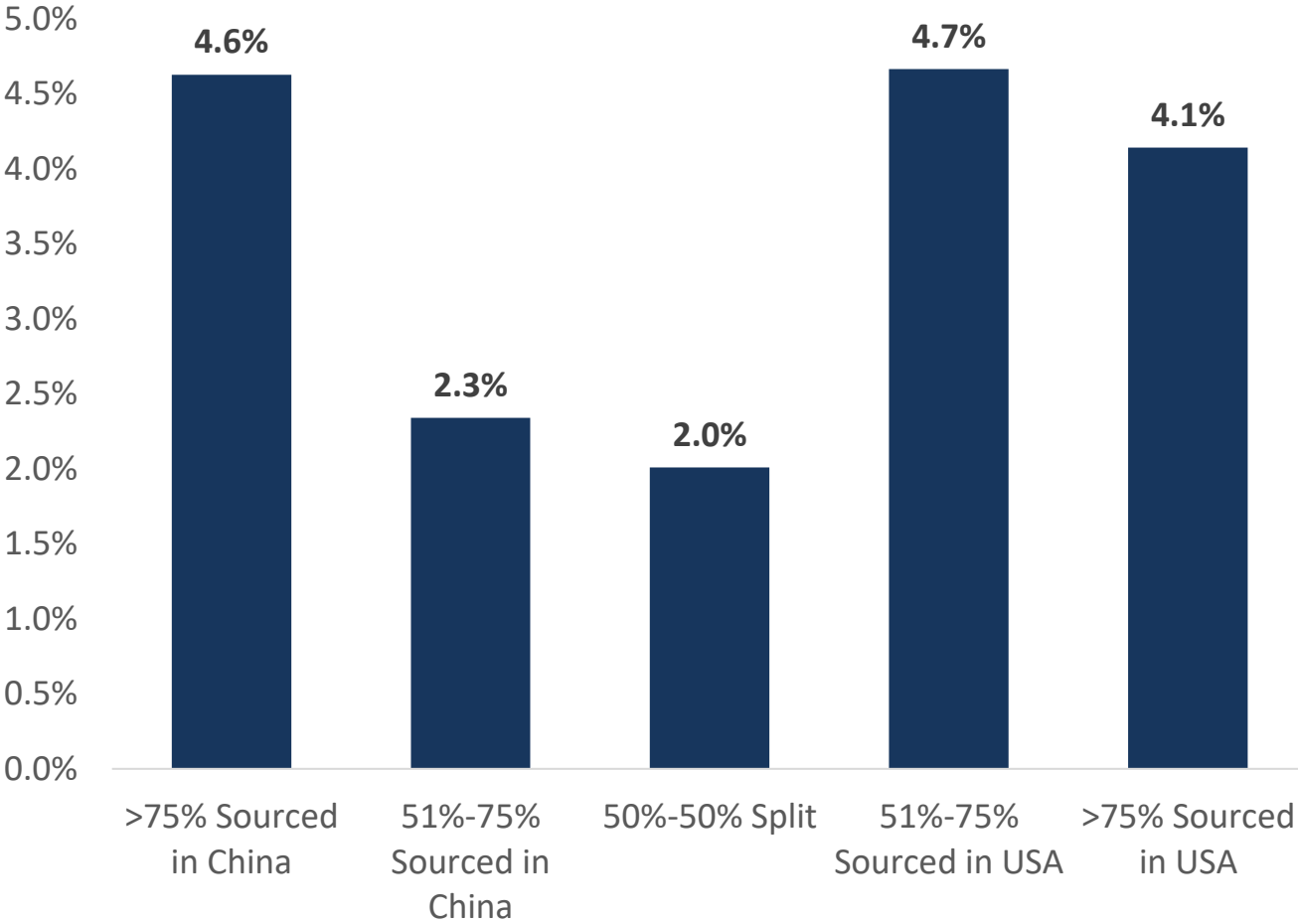


# Higher EBIT Shops have clear US or China Strategy

Tool Sourcing



2020 EBIT % by Tool Source Location



Questions: What percent of tools are sourced each country? Source: Harbour Results

# About Harbour Results

## Trusted Advisor to the Manufacturing Industry

Established to help small- to medium-sized businesses transform operations and develop a roadmap to maintain financial and operational success.



Business  
Assessments



Operations  
Improvement



Strategic  
Development

Sales Planning



Custom Analysis  
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Harbour IQ is an intelligence tool for the manufacturing industry that provides data and intelligence critical for companies to better understand the marketplace and make informed business decisions.

Harbour IQ is available at two distinct levels to cater to different business requirements

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Harbour IQ Standard is an affordable resource that provides up-to-date data and insights for manufacturers. Information is pushed directly to you on a biweekly basis in an easy-to-digest format.

## Harbour IQ Enterprise

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Harbour IQ Enterprise provides real-time access to advisors, intelligence, expertise and data for manufacturers as well as company-specific insights and information.



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