



**2023**  
**HEAVY CIVIL**  
**CONSTRUCTION INDEX**  
**Second Quarter Report**



May 2023

# EXECUTIVE SUMMARY



**The second quarter 2023 Heavy Civil Construction Index rose to 55.5 from 51.3, marking the second consecutive increase this year.** All four economic measures (overall economy, economy where we do business, and our engineering and construction business) showed improvement, with respondents' views on their businesses showing the largest increase.

**Positive expectations for next quarter can be seen across multiple segments, except for residential site development.** Respondents have the most favorable outlook on the ports/marines/docks segment, with half predicting an improvement next quarter and none expecting worsening conditions.

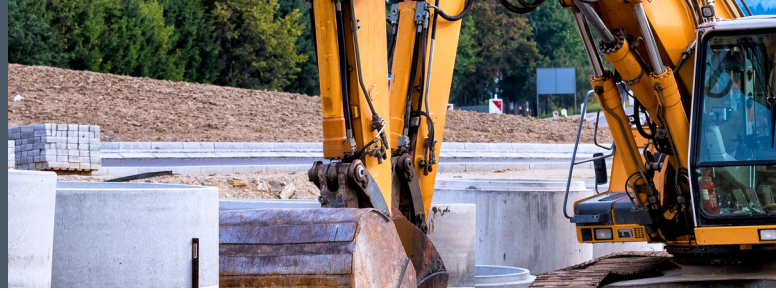
**Backlog/burn rates improved slightly compared to last quarter, with approximately 51% responding that they are adding backlog quicker than they are burning it.** Over half of respondents (62%) indicated their backlogs are higher this quarter compared to a year ago, and 85% said backlogs are at or higher than what is needed or anticipated at this point in the year, compared to 76% from last quarter.

**A majority (90%) of respondents indicated that their margins are the same or better than they were a year ago.** A similar number (89%) said margins increased or remained the same as last quarter.

**Competitive pressures have declined slightly, with 61% of contractors reporting an increase in this measure, down from 67% last quarter.** Conversely, 39% indicated similar or decreasing competition, up from 33% last quarter. Bid prices have increased again this quarter, with 66% of respondents reporting higher bids. New entrants did increase slightly, with 18% of respondents reporting an uptick in new companies compared to 16% last quarter.

HCCI INDEX MOVEMENT			
Current Reading for Q2 2023		Previous Reading for Q1 2023	
55.5		51.3	
		Q2 2023	Q1 2023
Overall U.S. Economy	↑	42.4	38.1
Economy Where We Do Business	↑	46.8	44.9
Our Engineering and Construction Business	↑	64.1	54.0
Engineering and Construction Where We Do Business	↑	55.7	50.6
Backlog	↑	66.2	62.8
Book/Burn Rate	↓	65.3	68.2
Cost of Materials	↑	25.3	21.5
Cost of Labor	↓	16.7	18.6
Productivity	↑	48.0	44.7

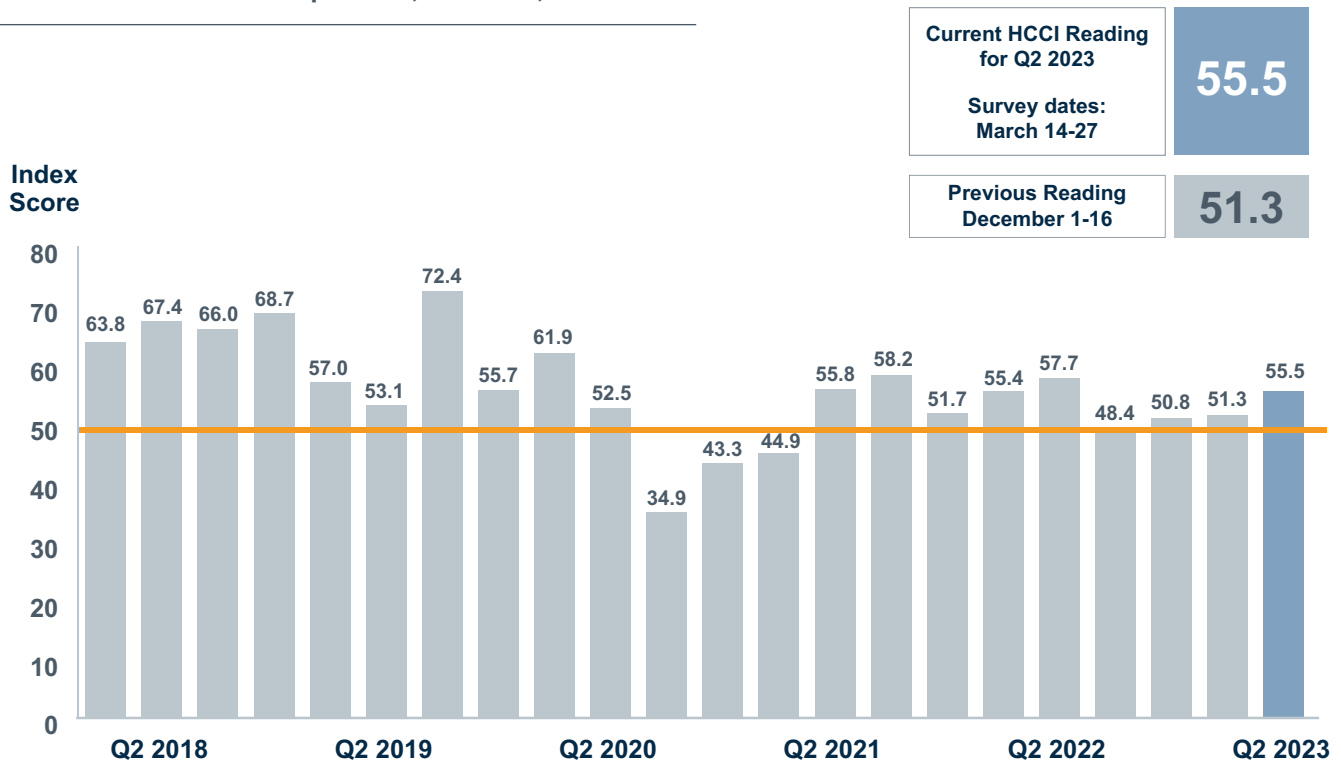
# EXECUTIVE SUMMARY



## Heavy Civil Construction Index (HCCI)

### Q2 2018 to Q2 2023

Scores above 50 indicate expansion; below 50, contraction

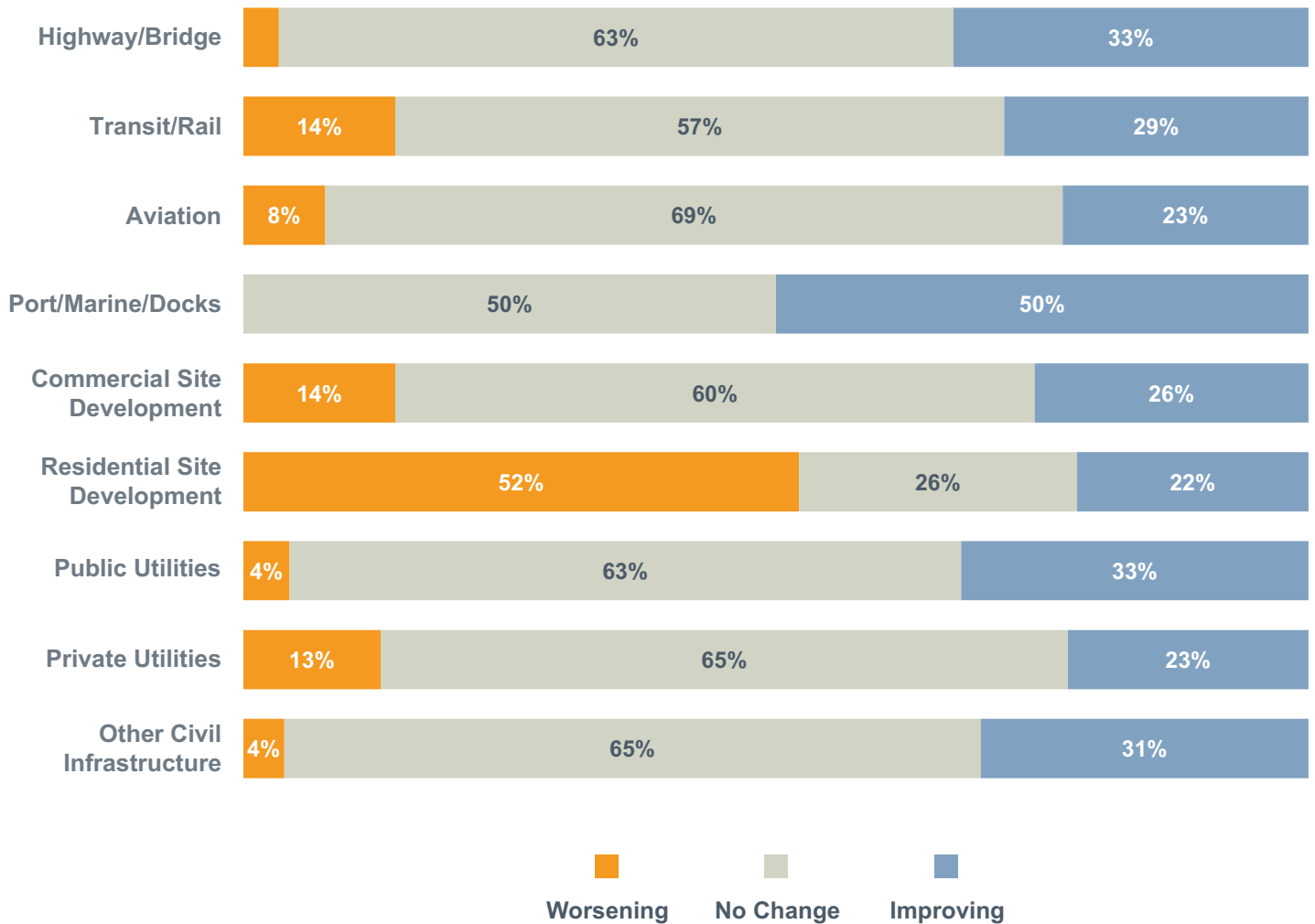


Source: FMI Heavy Civil Construction Survey Q2 2023

# EXECUTIVE SUMMARY



## Perception of Change by Segment for Next Quarter

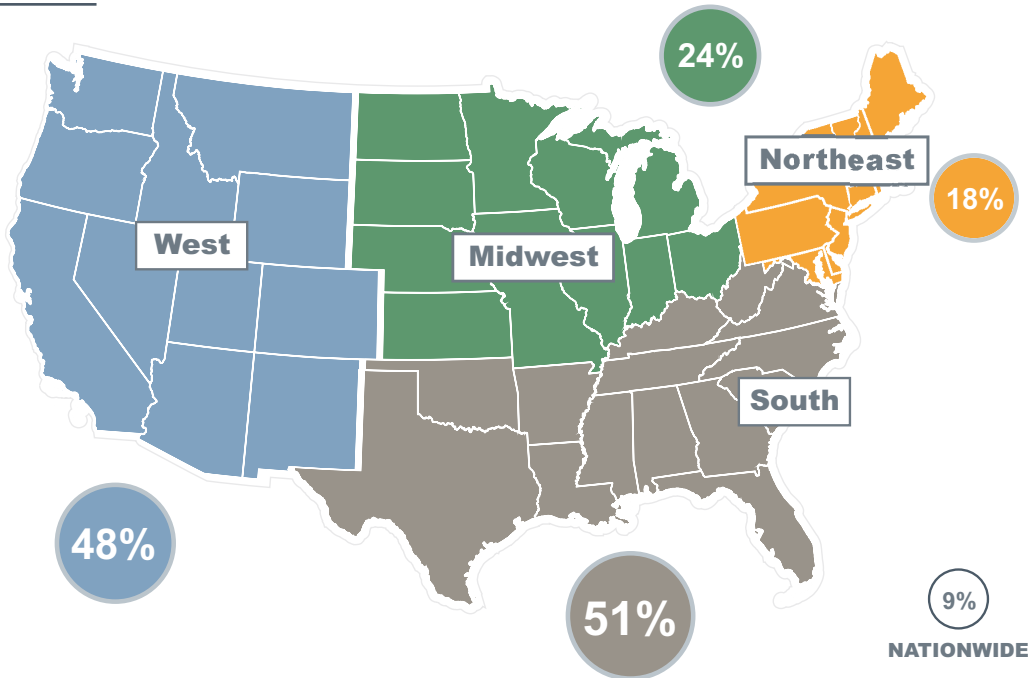


# DEMOGRAPHIC INFORMATION

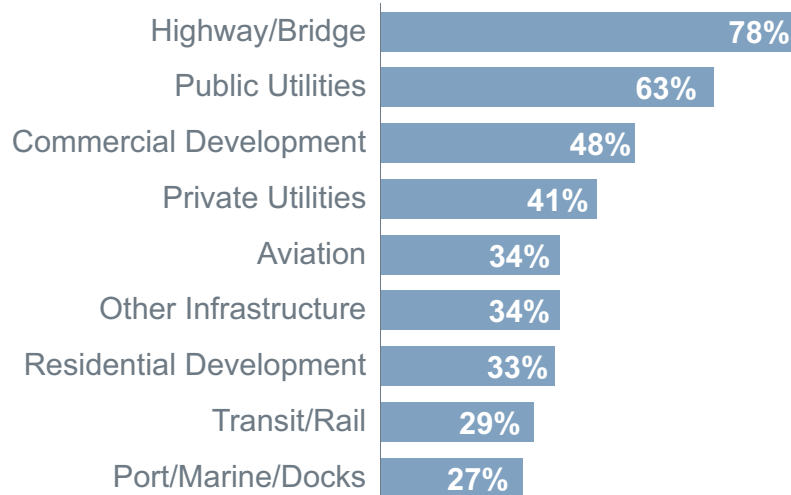


## Where Survey Participants Work

### By Geography



### By Discipline



Respondents are able to select more than one option.



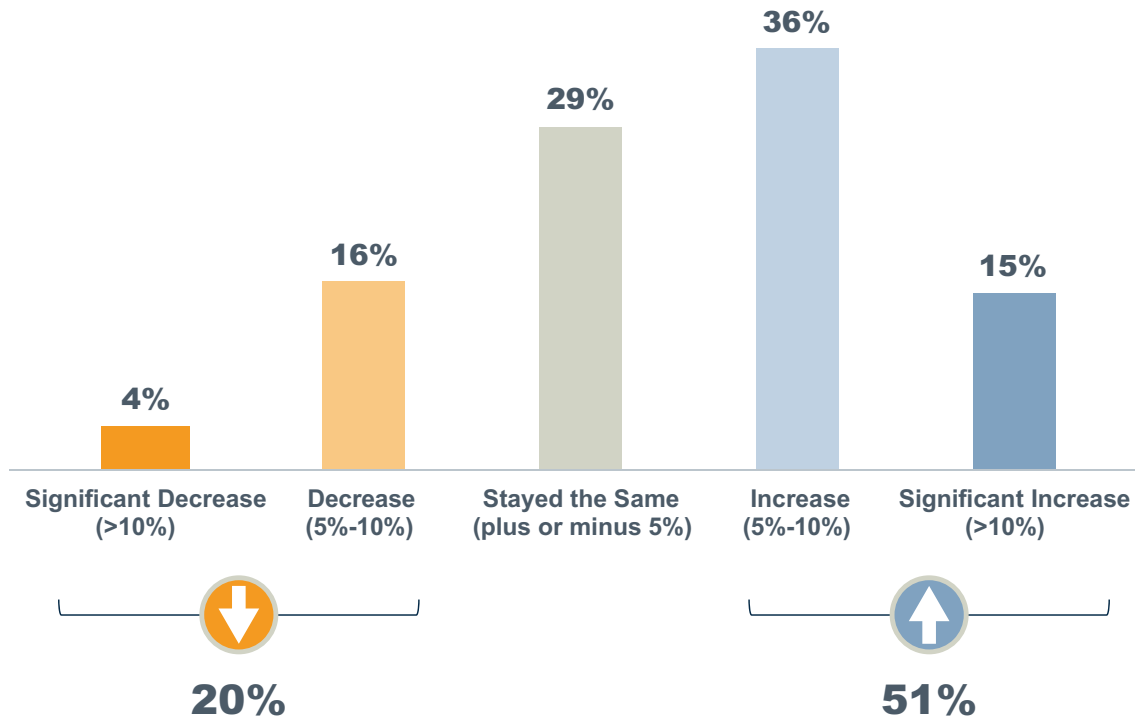
# MARKET CONDITIONS

# Key Findings

- Contractors are building backlog faster than they are burning it, with 51% saying their book/burn rate increased, compared to 49% in the previous quarter. Over half of respondents (62%) said backlogs were higher than the previous year's quarter, and 85% have backlogs meeting or at higher levels than what is needed at this point in the year.
- Open-ended commentary points to multiple factors, including additional costs, seasonal impacts and an increase in projects put out to bid, supporting elevated backlogs.
- A majority of respondents (90%) indicated that margins are the same or better than the second quarter last year. The 10% minority who reported lower margins cited increased competition and inflation as the main reasons. Most respondents (89%) said margins improved or remained the same compared to last quarter.
- Nearly two-thirds of contractors (61%) reported an increase in competitors over the prior quarter. Additionally, 66% of respondents said bid prices increased since last quarter, adding to competitive forces. More contractors are seeing new competitors in their markets, with 18% of respondents saying they've seen a new entrant in the last six months compared to 16% last quarter.

## Backlog Book/Burn Rate (Year Over Year)

Book/burn rate is the pace backlog is added compared to how quickly it is used.



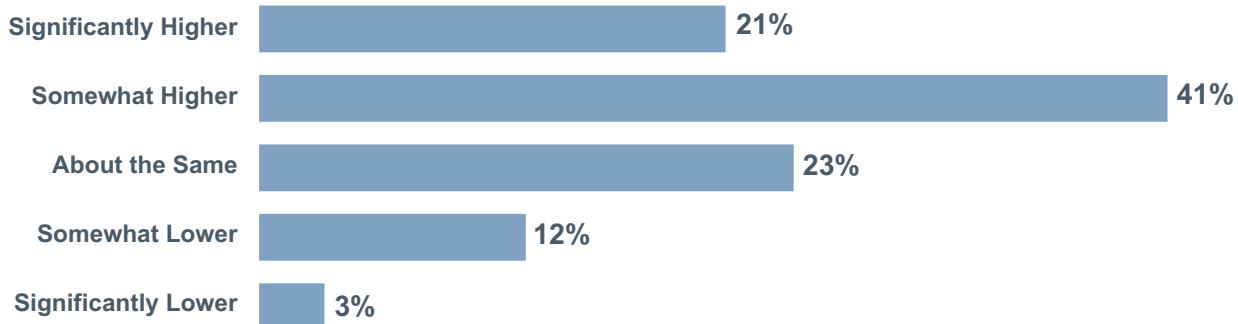


## Backlogs

---

How does your backlog in the most recent quarter compare to that of the same quarter last year?

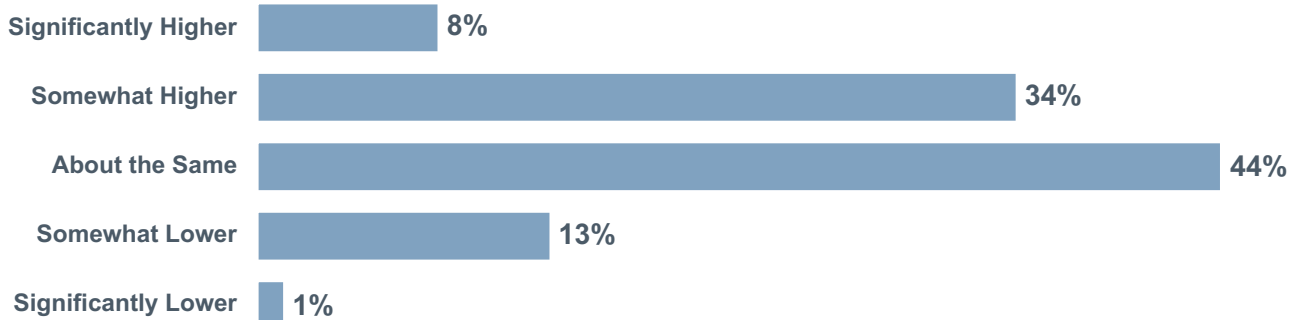
---



---

What is your current backlog compared to your anticipated/needed backlog at this point in the year?

---



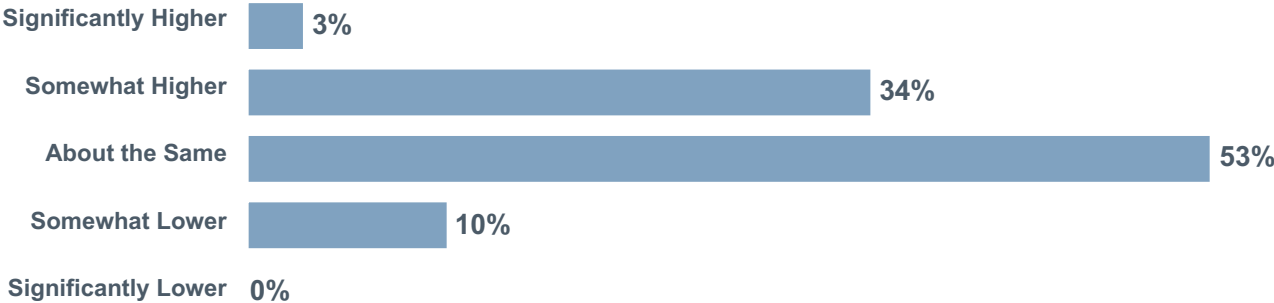


# MARKET CONDITIONS



## Margins

How would you compare margins on the work you have acquired in this quarter compared to the same quarter last year? (i.e., year-over-year change)



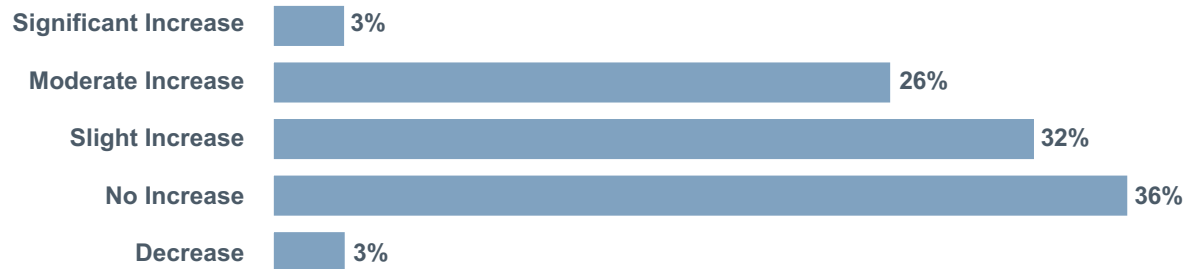
How would you compare margins on the work you have acquired in this quarter compared to the previous quarter?



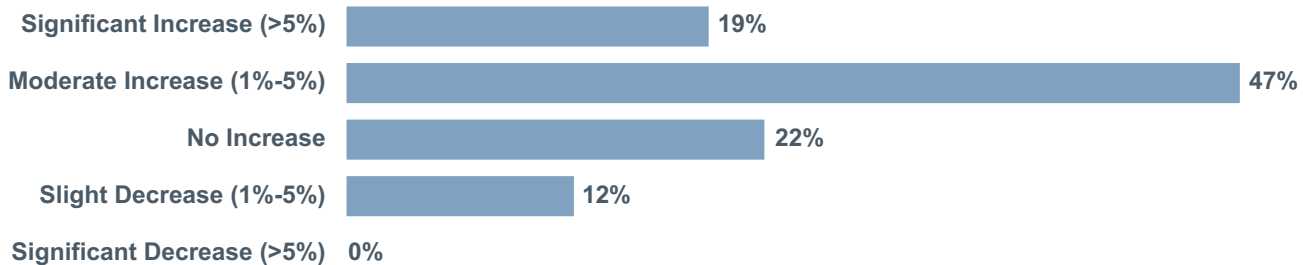


## Competitive Landscape

How has the competitive landscape changed in the last quarter in terms of the number of competitors?



How have bid prices been impacted in the last quarter?



In the past six months, have you experienced an increase in nontraditional civil firms (new entrants) in the market?





## CURRENT ISSUES

# Current Issues: Subcontractor Defaults

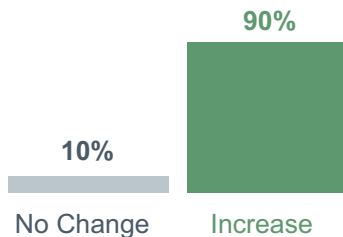
- While only 15% of contractors said they experienced subcontractor defaults in the past 12 to 24 months, most, or 90%, reported both default frequency (i.e., number/count) and severity (i.e., costs) were higher than normal.
- Over the past two years, subcontractor defaults were most often attributed to supply chain issues and materials price escalation. Other reasons included labor shortages and subcontractors taking on too much work and/or overly aggressive bids or pricing.
- Most respondents (80%) believe subcontractors' financial health is stabilizing, with a minority split, or 10% each, seeing subcontractor financial health either increasing or decreasing.
- Similarly, most respondents (80%) did not expect to see an increase in defaults in the next year.
- Most or, 90%, of those experiencing defaults fired and replaced the subcontractor, and 70% pulled in additional resources, either internal or external, to assist the subcontractor.

## Over the past 12 to 24 months, have you had experience with subcontractor defaults?

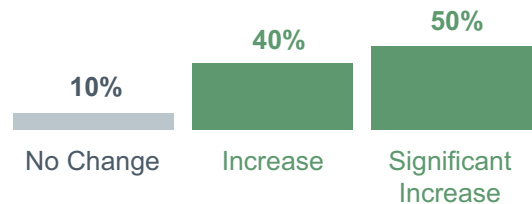


The following charts represent those who have recent experience with subcontractor defaults.

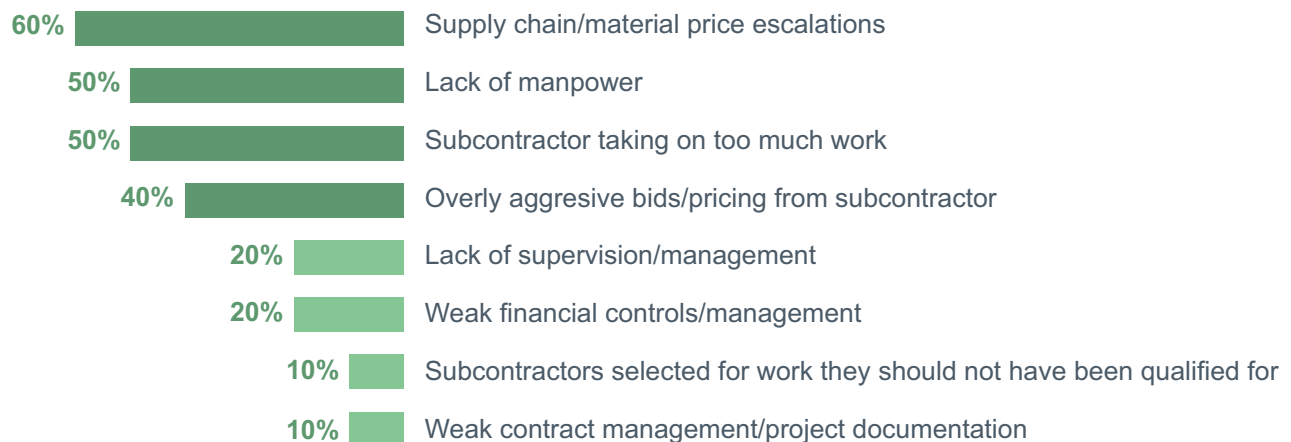
Over the past 12 months, describe the frequency of subcontractor default (i.e., number/count).



Over the past 12 months, describe the severity of subcontractor default in your work program (i.e., costs).



## What are the leading factors in the defaults you have experienced or observed?



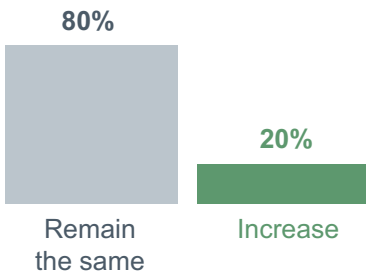
# CURRENT ISSUES



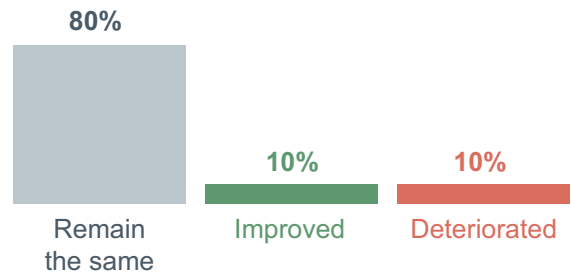
## Subcontractor Defaults *continued* ...

The following charts represent those who have recent experience with subcontractor defaults.

Over the next 12 months, subcontractor defaults are expected to:



Based on your prequalifications processes, subcontractor financial health has generally:



If you have experienced a default within the past 24 months, what strategies have you used to address the challenge?





# HEAVY CIVIL CONSTRUCTION OUTLOOK

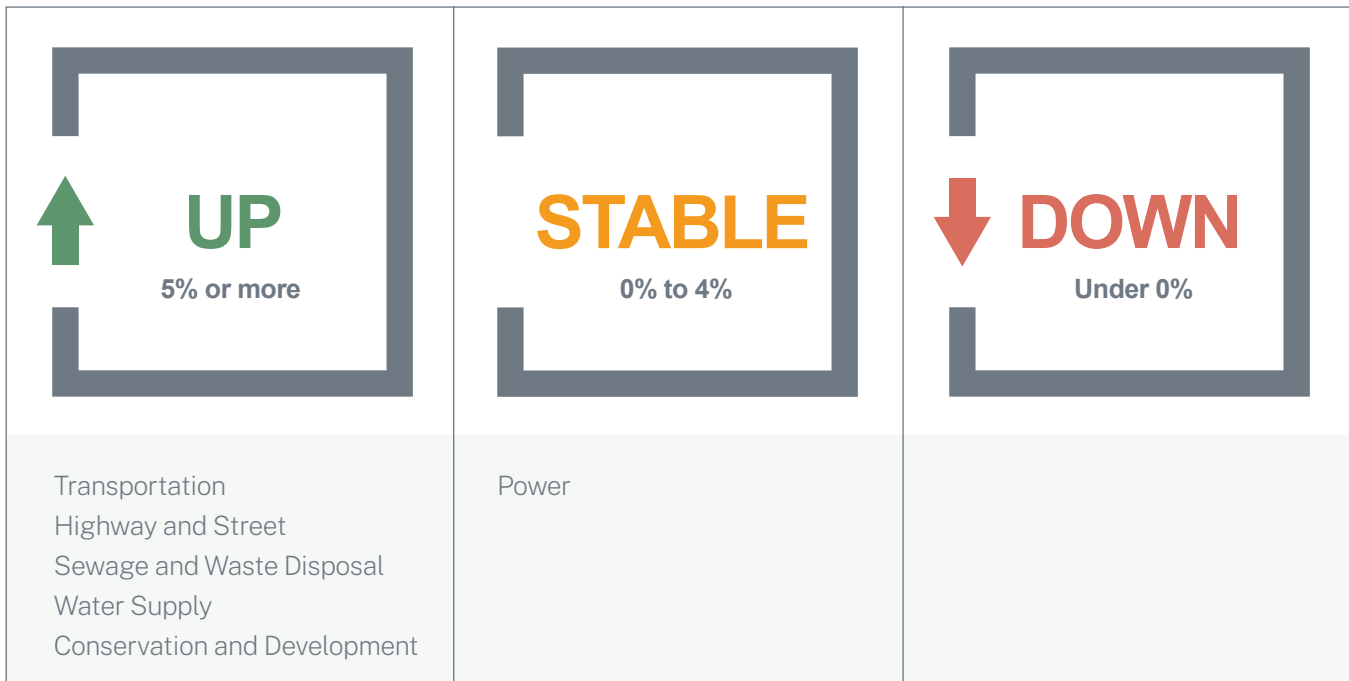
# HEAVY CIVIL CONSTRUCTION OUTLOOK



## Key Findings

- Total heavy civil construction put in place is forecast to grow significantly in 2023 (6.8%), with every category (except power) expected to grow between 7% to 12%. The biggest increases are in the rail/transit, water, roadways, and conservation and development segments, with each growing more than 10% in 2023.
  - Every subsegment of heavy civil construction is expected to grow each year of our forecast period. The power subsegment will continue to be the laggard through 2024.
- However, power will see more robust growth rates in 2025 and grow beyond its previous highs in 2021.
- In the near term, both rail/transit and water will post double-digit growth through 2025. The bridge sector will also increase significantly, reaching strong double-digit growth rates between 2024 and 2026.

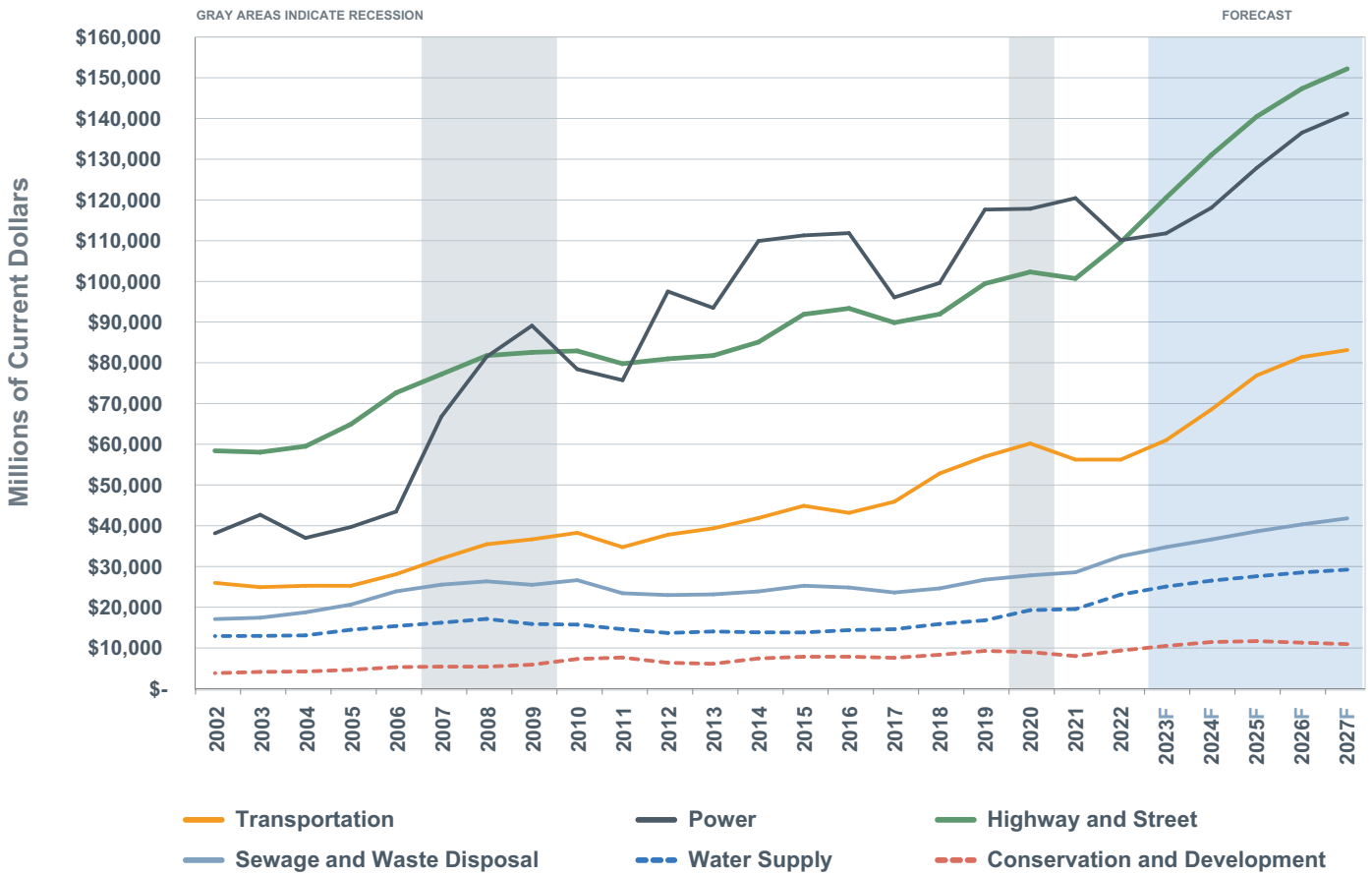
## U.S. 2023 Segment Performance 2023/2022 Comparison



# HEAVY CIVIL CONSTRUCTION OUTLOOK



## Heavy Civil Construction Put in Place

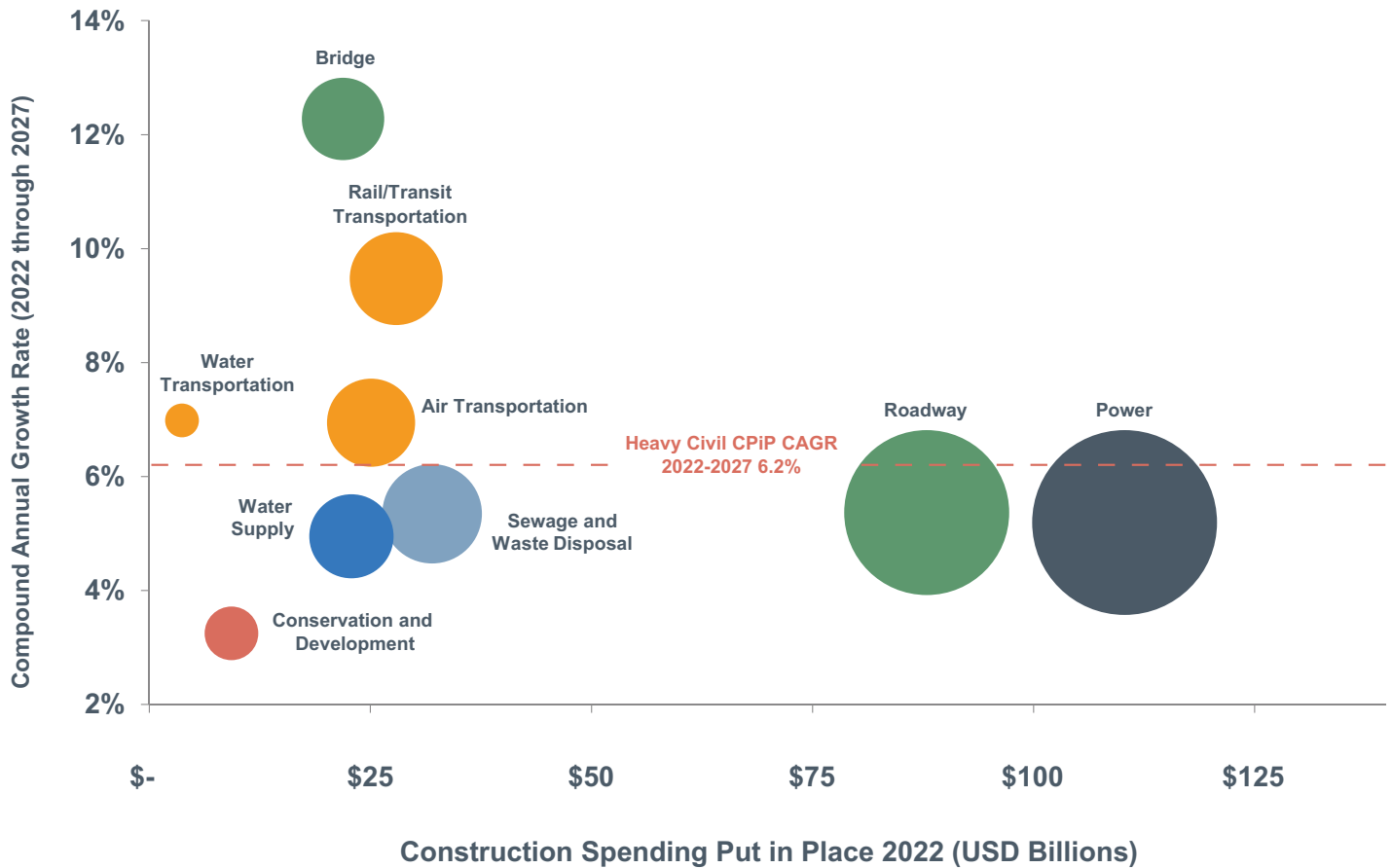




# HEAVY CIVIL CONSTRUCTION OUTLOOK



## Heavy Civil Construction Spending Put in Place 2022 and Forecast Growth (2022 through 2027) by Segment



# HEAVY CIVIL CONSTRUCTION OUTLOOK



## Heavy Civil Construction Put in Place Estimated for the United States

Millions of Current Dollars

2nd Quarter 2023 Forecast (Based on 4th Quarter 2022 Actuals and 1st Quarter 2023 Assumptions)

	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
<b>TRANSPORTATION</b>	<b>53,218</b>	<b>57,449</b>	<b>60,733</b>	<b>56,689</b>	<b>56,690</b>	<b>61,547</b>	<b>69,260</b>	<b>77,786</b>	<b>82,410</b>	<b>84,157</b>
Air	22,008	24,428	27,736	25,551	25,083	26,605	28,822	31,668	33,956	35,091
Rail/Transit	28,200	28,898	28,874	27,455	27,914	30,873	35,904	41,122	43,274	43,890
Port/Water	3,010	4,123	4,123	3,683	3,693	4,069	4,534	4,996	5,180	5,176
<b>POWER</b>	<b>99,569</b>	<b>117,960</b>	<b>118,168</b>	<b>120,834</b>	<b>110,291</b>	<b>112,003</b>	<b>118,418</b>	<b>128,400</b>	<b>137,247</b>	<b>142,064</b>
<b>HIGHWAY AND STREET</b>	<b>91,745</b>	<b>99,402</b>	<b>102,321</b>	<b>100,679</b>	<b>109,809</b>	<b>120,939</b>	<b>131,673</b>	<b>141,274</b>	<b>148,296</b>	<b>153,256</b>
Roadway	63,344	72,675	80,332	78,594	87,904	97,042	104,633	110,115	112,269	114,172
Bridge	28,401	26,727	21,989	22,085	21,905	23,897	27,041	31,159	36,027	39,084
<b>SEWAGE AND WASTE DISPOSAL</b>	<b>23,931</b>	<b>26,119</b>	<b>27,189</b>	<b>27,968</b>	<b>31,979</b>	<b>34,280</b>	<b>36,193</b>	<b>38,235</b>	<b>39,977</b>	<b>41,492</b>
<b>WATER SUPPLY</b>	<b>15,477</b>	<b>16,397</b>	<b>18,952</b>	<b>19,214</b>	<b>22,855</b>	<b>24,862</b>	<b>26,345</b>	<b>27,436</b>	<b>28,389</b>	<b>29,101</b>
<b>CONSERVATION AND DEVELOPMENT</b>	<b>8,229</b>	<b>9,207</b>	<b>8,903</b>	<b>7,893</b>	<b>9,295</b>	<b>10,442</b>	<b>11,424</b>	<b>11,651</b>	<b>11,266</b>	<b>10,905</b>
<b>TOTAL HEAVY CIVIL PUT IN PLACE</b>	<b>\$292,169</b>	<b>\$326,534</b>	<b>\$336,266</b>	<b>\$333,277</b>	<b>\$340,919</b>	<b>\$364,072</b>	<b>\$393,313</b>	<b>\$424,783</b>	<b>\$447,585</b>	<b>\$460,976</b>

## Heavy Civil Construction Put in Place Estimated for the United States

Change From Prior Year Current Dollar Basis

2nd Quarter 2023 Forecast (Based on 4th Quarter 2022 Actuals and 1st Quarter 2023 Assumptions)

	2018	2019	2020	2021	2022	2023F	2024F	2025F	2026F	2027F
<b>TRANSPORTATION</b>	<b>15.3%</b>	<b>8.0%</b>	<b>5.7%</b>	<b>-6.7%</b>	<b>0.0%</b>	<b>8.6%</b>	<b>12.5%</b>	<b>12.3%</b>	<b>5.9%</b>	<b>2.1%</b>
Air	28.0%	11.0%	13.5%	-7.9%	-1.8%	6.1%	8.3%	9.9%	7.2%	3.3%
Rail/Transit	6.1%	2.5%	-0.1%	-4.9%	1.7%	10.6%	16.3%	14.5%	5.2%	1.4%
Port/Water	27.8%	37.0%	0.0%	-10.7%	0.3%	10.2%	11.4%	10.2%	3.7%	-0.1%
<b>POWER</b>	<b>3.8%</b>	<b>18.5%</b>	<b>0.2%</b>	<b>2.3%</b>	<b>-8.7%</b>	<b>1.6%</b>	<b>5.7%</b>	<b>8.4%</b>	<b>6.9%</b>	<b>3.5%</b>
<b>HIGHWAY AND STREET</b>	<b>2.4%</b>	<b>8.3%</b>	<b>2.9%</b>	<b>-1.6%</b>	<b>9.1%</b>	<b>10.1%</b>	<b>8.9%</b>	<b>7.3%</b>	<b>5.0%</b>	<b>3.3%</b>
Roadway	7.0%	14.7%	10.5%	-2.2%	11.8%	10.4%	7.8%	5.2%	2.0%	1.7%
Bridge	-6.7%	-5.9%	-17.7%	0.4%	-0.8%	9.1%	13.2%	15.2%	15.6%	8.5%
<b>SEWAGE AND WASTE DISPOSAL</b>	<b>4.5%</b>	<b>9.1%</b>	<b>4.1%</b>	<b>2.9%</b>	<b>14.3%</b>	<b>7.2%</b>	<b>5.6%</b>	<b>5.6%</b>	<b>4.6%</b>	<b>3.8%</b>
<b>WATER SUPPLY</b>	<b>9.2%</b>	<b>5.9%</b>	<b>15.6%</b>	<b>1.4%</b>	<b>18.9%</b>	<b>8.8%</b>	<b>6.0%</b>	<b>4.1%</b>	<b>3.5%</b>	<b>2.5%</b>
<b>CONSERVATION AND DEVELOPMENT</b>	<b>10.2%</b>	<b>11.9%</b>	<b>-3.3%</b>	<b>-11.3%</b>	<b>17.8%</b>	<b>12.3%</b>	<b>9.4%</b>	<b>2.0%</b>	<b>-3.3%</b>	<b>-3.2%</b>
<b>TOTAL HEAVY CIVIL PUT IN PLACE</b>	<b>5.8%</b>	<b>11.8%</b>	<b>3.0%</b>	<b>-0.9%</b>	<b>2.3%</b>	<b>6.8%</b>	<b>8.0%</b>	<b>8.0%</b>	<b>5.4%</b>	<b>3.0%</b>

## ABOUT THE AUTHORS



**Brian Moore** is a partner at FMI, focusing on consulting with contractors on various strategic, organizational and operational issues. Brian works in identifying future construction trends, market conditions and competitive issues that impact strategic decisions. Brian's clients count on him as a thought leader and trusted advisor as they plan the future of their business. Often this involves combining in-depth market and company analysis with judgment and experience to chart the organization's future. He works with clients to help them develop the organizational capabilities that match their chosen strategy so they can achieve desired results. Brian can be reached at [\*\*\*brian.moore@fmicorp.com\*\*\*](mailto:brian.moore@fmicorp.com).



**Brian Strawberry** is chief economist at FMI. Brian leads FMI's efforts in market sizing, forecasting, building products and construction material pricing, and consumption trends. He focuses on primary research methods, including the implementation and analysis of surveys and interviews. Brian also leads and manages various external market research engagements and constructs tools and models for efficiently performing high-quality analyses. He can be reached at [\*\*\*brian.strawberry@fmicorp.com\*\*\*](mailto:brian.strawberry@fmicorp.com).



**Jackson Mathis** conducts primary and secondary research for FMI's clients across the engineering and construction industry. He is responsible for conducting interviews with subject matter experts, designing surveys and analyzing market research data. Jackson works with partners and consultants to deliver quality projects that help drive growth and solve business problems. He can be reached at [\*\*\*jackson.mathis@fmicorp.com\*\*\*](mailto:jackson.mathis@fmicorp.com).



FMI is a leading consulting and investment banking firm dedicated to serving companies working within the built environment. Our professionals are industry insiders who understand your operating environment, challenges and opportunities. FMI's sector expertise and broad range of solutions help our clients discover value drivers, build resilient teams, streamline operations, grow with confidence and sell with optimal results.

## CONTACT US

---



**RALEIGH HEADQUARTERS**  
223 S. West Street  
Suite 1200  
Raleigh, NC 27603



919.787.8400

[fmicorp.com](http://fmicorp.com)

## OFFICES

---

Denver  
44 Cook Street  
Suite 900  
Denver, CO 80206  
303.377.4740

Houston  
1301 McKinney Street  
Suite 2000  
Houston, TX 77010  
713.936.5400

Tampa  
4300 W. Cypress Street  
Suite 950  
Tampa, FL 33607  
813.636.1364