

**PROCORE**



SmartMarket Brief



# Top Business Issues for Specialty Contractors

Profitability | Workforce | Technology

# Introduction

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## About This Research

Specialty trade contractors are a vital part of the construction industry. Dodge Data & Analytics partnered with Procore Technologies to survey 537 specialty trade contractors about three key issues impacting their businesses:

- Profitability
- Workforce
- Technology

## Survey Respondents

The survey was completed by five types of specialty contractors (Mechanical, Electrical, Plumbing, Steel and Concrete) in four geographic regions (US, Canada, UK and Australia/New Zealand). Company sizes ranged from \$2 million to over \$2 billion in annual revenue, providing a comprehensive perspective on the industry.

## Objectives of The Study

The main goals of this study are to:

- Help specialty contractors better understand the key trends that are impacting their businesses.
- Provide benchmarks and guidelines for peer comparisons.
- Broaden industry awareness of specialty contractors' digital advancements.

Dodge wishes to thank Procore for sponsoring this research.

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# Message From Procore

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In the last two decades we've seen a rapid evolution in construction technology and the pace of change is only increasing. 30 years ago, we were living in an analog world dominated by white boards, paper drawings and fax machines. Today, we live in a world where nearly every step in the construction process can be supported by digital technology. And while the construction industry has more technology at its fingertips than ever before, it's facing some of its biggest challenges yet— from a persistent labor shortage to commodity price increases and shortages.

We are committed to being the best partner to the construction industry as it digitizes and navigates this ever changing

world, and that work spans beyond our technology. We aim to not only provide the best software for construction, but also the education and thought leadership needed to upskill the current workforce, and draw more talent into the construction industry. Our vision at Procore is to improve the lives of everyone in construction – Owners, General Contractors and Specialty Contractors, and everyone who touches construction. And, we believe that the insights gained in this report will help specialty contractors make better decisions and be more prepared for the future.

Procore is excited about the opportunity to partner with Dodge Data & Analytics

to better understand the state of specialty contractors all across the world. We surveyed specialty contractor professionals throughout the industry on the capabilities, challenges, and current solutions associated with key issues such as profitability, material shortages, labor constraints, safety and technology usage. Procore is thrilled to be at the forefront of digital transformation and our goal is to provide the people in construction with technology that makes their lives easier, safer, and more productive.

**Tooe Courtemanche**

CEO and Founder Procore Technologies Inc.

# About the Data

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The *Top Business Issues for Specialty Contractors SmartMarket Brief* is the latest in a series of research reports published by Dodge Data & Analytics on how economic trends, workforce issues and technology advances are transforming the global construction industry and affecting the individuals and organizations that operate in it.

This report focuses exclusively on five types of specialty trade contractors (mechanical, electrical, plumbing, steel and concrete). It examines the top issues they are facing related to profitability, workforce resources and adopting and implementing technology.

## Construction Terminology Used in This Report

This is a global research study, covering the US, Canada, UK and Australia/New Zealand. Dodge recognizes a wide variety of construction-related terminology is used across these regions. For example, when we refer to a specialty contractor, we are aware of its equivalent term, subbie, in different locales. Similarly, change order as opposed to variation. To avoid redundancy, we will defer to the terminology most commonly used in the United States.

## Company Size Designations Used in This Report

To provide a comprehensive perspective, survey respondents include companies that range from the local equivalent of \$2 million to over \$2 billion (USD) in annual construction volume. For analysis purposes in the report, these are grouped into four categories:

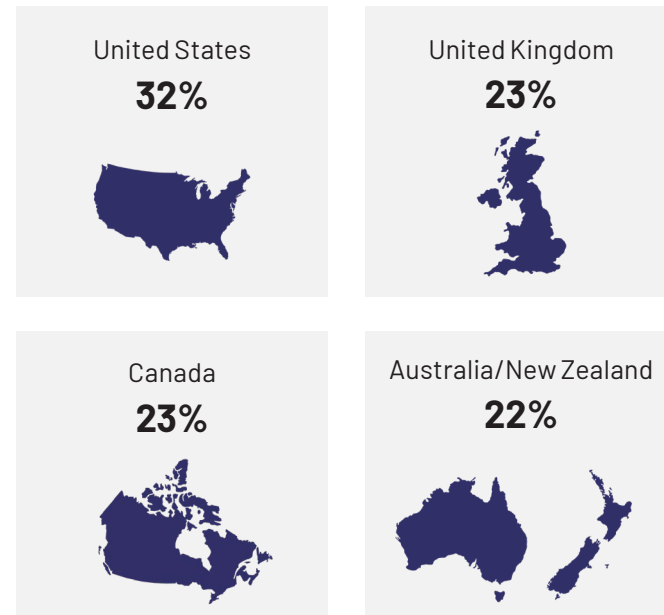
- Small companies: \$2 million to under \$10 million
- Medium companies: \$10 million to under \$50 million
- Large companies: \$50 million to \$200 million
- Very large companies: Over \$200 million

In certain cases throughout this report, the findings from two size categories are added together for simplicity into an aggregated group such as large/very large companies or small/medium companies.

## Specialty Contractors Surveyed

- Mechanical Contractors: 24%
- Electrical Contractors: 23%
- Plumbing Contractors: 23%
- Steel Contractors: 23%
- Concrete Contractors: 7%

## Regional Diversity





## About the Data (CONTINUED)

### Respondents' Primary Roles

Senior Management (e.g., CEO, COO, President, etc.)	17%
Financial Leadership (e.g., CFO, Controller, etc.)	6%
Project Executive/Manager/Engineer	18%
Operations Executive	11%
Site Management (e.g., Superintendent, Foreman, etc.)	9%
Preconstruction/Estimating	6%
Other (e.g., Safety, Quality, etc.)	8%
CIO/CTO/Director of Technology	12%
VDC Manager/Engineer	13%

### Range of Annual Company Revenue

\$2 million to less than \$10 million	12%
\$10 million to less than \$20 million	18%
\$20 million to less than \$50 million	17%
\$50 million to less than \$100 million	14%
\$100 million to less than \$200 million	19%
\$200 million to less than \$500 million	10%
\$500 million or more	10%

### Respondents' Project Experience

Commercial and Institutional Buildings	66%
Industrial Buildings	62%
Multi-Family Residential	34%
Single-Family Residential	33%
Water and Sewer Line and Related Structures	22%
Power and Communication Line and Related Structures	20%
Oil and Gas Pipeline and Related Structures	16%
Transportation and Related Structures	14%
Highways Streets and Bridges	10%
Land Subdivision	4%
Other Heavy and Civil Projects	3%

### Percentage of Respondents' Work That Is Self-Performed

Less than 50%	18%
50-80%	56%
More than 80%	26%

# Key Findings

## Profitability Trends



Click any header to go directly to the section.

### Margin Erosion Plagues All Specialty Contractors

While the average annual profit margin across all specialty contractors surveyed is 21%, their margin on individual projects is eroded by an average of 5% during construction.

- Only 1% report never experiencing margin erosion while nearly one third report typical erosion of 7% or more.
- 42% cite materials challenges (shortages, delays or price fluctuations) as a top cause of margin erosion, and almost one-third (31%) point to a lack of skilled labor.
- 29% report that inaccurate estimating is a leading cause of erosion.
- Large/very large companies cite internal process causes more often than small/medium ones. Examples include inefficient procurement (26% versus 11%) and poor reporting between field and office (29% versus 14%).

### Poor Resource Management Drives Unplanned Rework

Rework is a key drain on productivity, schedule management and cost control as well as profit margin.

- Specialty contractors identify poor resource management (labor, materials, equipment) and poor client communication as top drivers of rework.
- One third of the large/very large companies say it accounts for half or more of their margin erosion.

### Unbillable Change Orders Represent Major Lost Revenue, Especially for Large Companies

On average, 32% of project revenue is lost because of change orders that go unbilled and unpaid.

- 31% of large/very large companies lose over half their total project revenue, compared to just 14% of small/medium organizations.
- 38% of UK companies and 36% in Australia/New Zealand report losing half or more of their revenue to unbilled changes versus just 12% in the US and 24% in Canada.

### Nearly One Third of Payments Are Made 60+ Days After Invoicing, Highlighting the Need for Better Financial Control and Solutions

While 49 days is the average payment time across all trades surveyed, 29% report their typical period exceeds 60 days. Contractors' top recommendations for how to get paid faster with less conflict include:

- Better financial management software
- More process automation
- More efficient invoicing/logistics

### Larger Companies Leverage Far More Debt to Finance Materials Purchases

Large/very large companies use credit card debt (73%), supplier loans (70%) and bank loans (65%) far more frequently than small/medium organizations (47%, 39% and 17%, respectively).

### Supply Chain Disruptions Force Specialty Contractors to Absorb Materials Cost Increases and Drive New Approaches

On average, 31% cannot pass materials cost increases on to owners on half or more of their projects. This is highest among steel contractors (43%), who face a very volatile cost market. Approaches to deal with these challenges include:

- Nearly half are raising their prices, especially concrete trades (56%).
- Steel contractors are most frequently procuring directly from manufacturers (46%) and turning down work if they cannot procure materials (40%).
- Regionally, the fewest UK companies are raising prices (33%) or turning down work (22%). Canadian companies are most likely to turn down work (42%).

# Key Findings

## Workforce Trends



Click any header to go directly to the section.

### Labor Shortages Will Continue to Afflict the Industry

Over 90% of specialty contractors report that their projects are negatively affected by a shortage of skilled labor.

- On average it impacts 40% of specialty contractors' projects.
- The hardest hit are steel contractors, half of whom report impacts on 50% or more of their projects.
- Among the effects being experienced, half or more report project delays and/or cost impacts, and about 40% identify worker health and safety issues, quality problems and more rework.

### The Retiring Workforce Will Worsen the Labor Shortage, Especially for Larger Companies

The current shortage will be made worse by pending retirement of many experienced workers.

- Trade contractors report that on average, 33% of their current staff are likely to retire in the next five years.
- The average is 26% among small companies but 39% among large ones.

### Inefficient Time Use Is Most Prevalent Among Large Specialty Contractors

On average, companies report that about 20% of workers' time is currently spent on low-productivity tasks, such as tracking down information, documenting information on paper, etc.

- Large/very large companies report the highest levels, with one quarter saying their staff spends over 30% of their time unproductively, compared to only about 10% of small/medium companies.
- UK and Australia also report above-average productivity issues, while the US is notably below the multi-regional average for unproductive time.

### Technology, Jobsite Automation and Offsite Construction Are Active Tactics to Augment Workforce Recruiting and Retention Efforts

While specialty contractors are focusing on attracting and retaining workers, many are also actively engaged in tactics that will enable higher productivity with limited resources.

- More construction technology investments to improve team productivity are planned by over one third of all specialty contractors, led by mechanical contractors (48%).
- About the same number across all trades plan to increase their use of jobsite automation, led by steel contractors (43%).
- A similar percentage plan increased use of offsite construction (e.g., prefab, modular, pre-engineered, etc.), once again led by steel contractors (43%). Small and medium-sized companies are planning to increase their current levels of offsite construction by about 50% over the next 12 months.

### Larger Specialty Contractors Lead in Leveraging Technology for Jobsite Safety

29% of large/very large companies have already implemented site cameras and drones, onsite sensors, wearable sensor devices and/or artificial intelligence/machine learning for analysis of imagery. Another 50% of them are planning adoption or actively considering it. Fewer of the small/medium organizations are either already using these technologies (about 21%) or say they are planning or considering it (about 23%).

Regionally, Canada leads in current usage, averaging 30% across all four technologies while US companies lag with an average of just 19%.

# Key Findings

## Construction Technology Trends



Click any header to go directly to the section.

### Many Specialty Contractors Still Rely on Methods Other Than Construction-Specific Software for Key Construction Activities

39% of specialty contractors report that they are still primarily using spreadsheets, whiteboards, paper-based processes or other methods instead of a construction-specific software solution for important construction functions including preconstruction, project execution and construction analysis.

- Among trades, concrete contractors generally have the lowest engagement with technology and steel contractors show the highest.
- Significant regional variations are found with the use of technology for project execution where the UK leads (69%) and US companies lag (56%).

### Lack of Standardized Processes Hurts Field-to-Office Communication

Nearly 30% of specialty contractors rate the quality of communication between the field and office at their company as less than either good or excellent, negatively impacting the effectiveness of key project processes.

- Almost half of small companies report this low quality of communication.
- Lack of standard methods of communication and lack of technology or mobile tools to streamline communication are cited as leading causes of communication issues, especially by steel contractors.

### Low Adoption of Construction Technology Makes Access to Reliable Workforce-Related Data Difficult

In spite of the severity of the workforce shortages specialty contractors are experiencing, several key tasks related to labor are among the most frequently cited as still handled primarily with manual processes. Those include labor planning and forecasting, labor scheduling and safety reporting.

- Regionally, US companies most frequently handle each of these manually, while Canadian companies are the least reliant on manual methods for them.
- Among the trades, plumbing companies report the fewest that are primarily using manual methods for these activities. Mechanical and concrete companies show the most.

### Field Adoption and Training Are Top Obstacles to Increasing Tech Implementation

Specialty contractors identify a wide variety of factors that pose challenges to adoption and implementation of technology solutions and need to be addressed in order to expand their programs.

- Resistance from field staff is cited by over one quarter (26%) of all companies. This varies regionally, with one third (32%) of Canadian companies reporting it compared to just 20% in Australia/New Zealand. It is also more frequent for steel (32%) and plumbing (29%) contractors.
- Concerns related to the time required for training are a factor for 27% of all companies, but especially in Australia/New Zealand (37%) and among mechanical contractors (32%).
- Relatively few cite a lack of senior management support (20%), believe their current methods are better (19%) or say that technology is too difficult to use (15%).



# Profitability Trends

## Introduction

Operating profitably is a core goal for every specialty contractor, but consistently achieving a targeted profit margin is challenging.

This section of the report shares findings from the survey about:

### Profit Margins

- The levels being achieved by different trades.
- How margins vary by company size and region.

### Erosion of Profit Margins

- Factors that erode profit during construction.
- How factors vary by company size, trade and region.

### Rework

- How unplanned rework impacts profit margins.
- Top causes of rework by company size, trade and region.

### Changes That Are Not Invoiced

- Revenue lost to changes that are not invoiced.
- How that varies by company size and region.

### Length of Time to Receive Payment

- How long it takes to receive payment for invoiced work.

### Methods of Financing Materials Purchases

- The relative frequency for each of five methods.
- How methods vary by company size.

### Supply Chain Disruptions

- How often companies must absorb material cost increases.
- Planned adjustments to accommodate disruptions.

### Financial Management Solutions

- The use of software compared with other solutions to conduct financial management activities.



# Profit Margins

## Steel and Plumbing Contractors Lead Other Trades for Profit Margin

Across all trades and regions surveyed, specialty contractors report an average annual profit margin of 21%. As shown in the chart, this varies by trade, with steel contractors showing the strongest results and concrete companies lagging severely.

## US Trails Other Regions for Profitability

Higher percentages of companies in Canada (61%) and Australia/New Zealand (59%) report above-average margins. Conversely, more US and UK organizations fall below the global average.

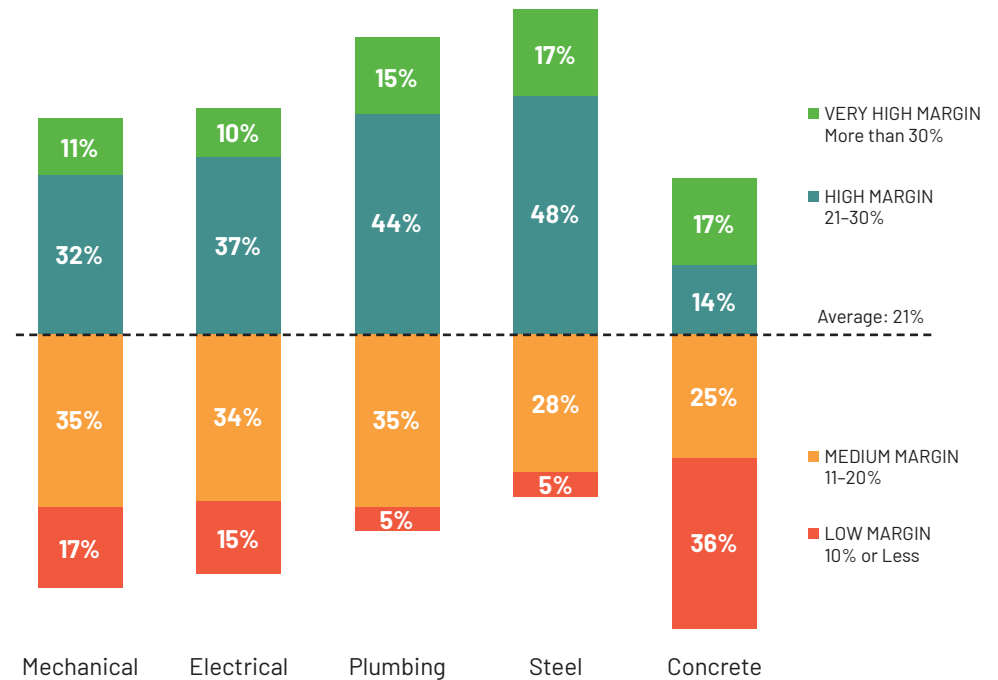
US companies also show the highest share (22%) who report margins of 10% or less, compared with an average of just 8% across the other three regions.

## More Small Companies Face Profit Challenges

20% of small companies report 10% or lower margins versus just 11% of large/very large organizations. For example, small concrete contractors only average 14%.

Specialty Contractors' Annual Profit Margins (By Trade)

Dodge Data & Analytics, 2022



NOTE: Totals less than 100% reflect the percentage who did not provide a response.

# Erosion of Profit Margin During Construction

## Root Causes

### Nearly All Specialty Contractors Experience Profit Erosion During Construction

The final profit margin on a given project is almost always less than what a specialty contractor targeted in the initial bid.

- Only 1% of the companies surveyed report that they never experience margin erosion during construction.
- Among the others the average margin erosion is 5%, and almost one third (29%) report 7% or higher erosion.

### Supply Chain Issues Most Frequently Cause Erosion

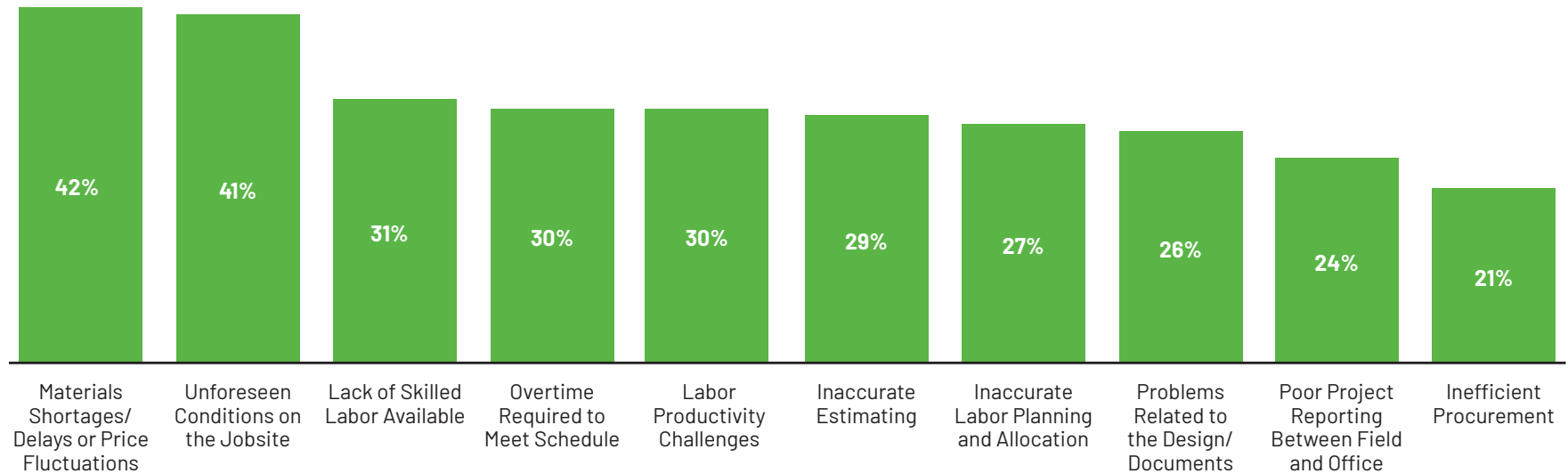
The chart shows how many companies cite each cause of margin erosion.

- Uncertainty around materials prices and availability scores highest and a lack of skilled labor is third. Both are direct reflections of the current unstable market.
- Unforeseen jobsite conditions, however, may be the industry’s oldest and most persistent problem. Digital twins and reality capture are helping to reduce them.

The following page addresses regional, trade and company size variations.

### Percentage Citing Each Factor As a Top Reasons for Profit Margin Erosion

Dodge Data & Analytics, 2022



# Erosion of Profit Margin During Construction (CONTINUED)

*Biggest Differences Between Company Sizes, Trades and Regions*

## Large Companies' Profits Are More Impacted by Poor Internal Processes

All companies, but especially small ones, are more impacted by the first two issues shown in the chart, which are market conditions they do not control. However, large/very large companies are notably more impacted by the other two problems shown, which are addressable by improved company processes. This may reflect challenges larger organizations face in implementing internal processes across broad portfolios of projects, many of which may be particularly complex and/or located at considerable distances from their home office.

### Variations by Trade

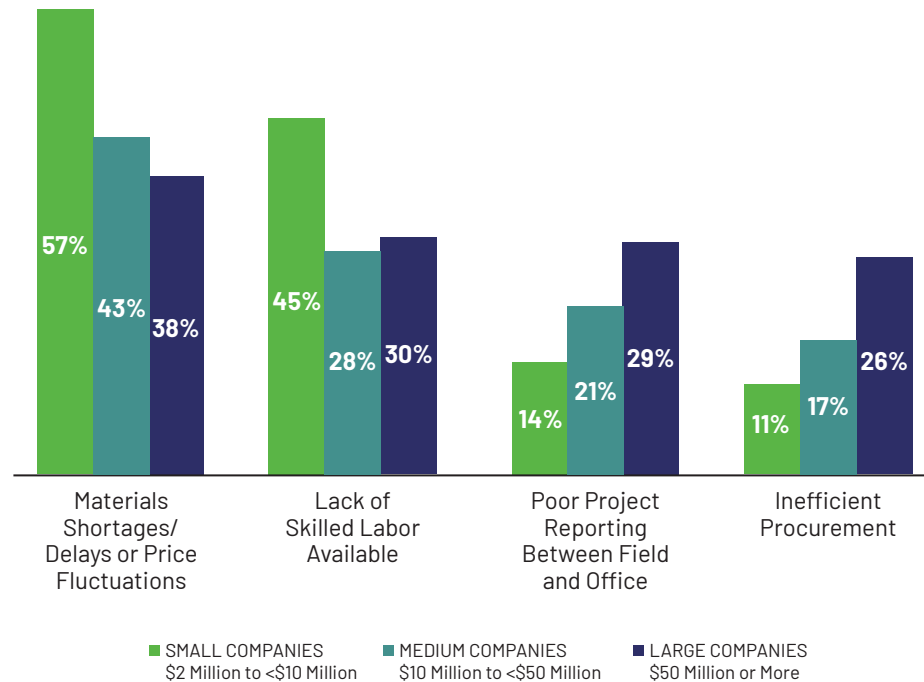
- Concrete contractors most frequently identify overtime required to meet schedule (42%) and problems related to the design/documents (33%) and least frequently cite inefficient procurement (14%).
- Almost half of steel contractors (47%) cite the negative impact of unforeseen conditions on the jobsite.

### Variations by Region

- US firms are the most impacted by materials shortages/delays or price fluctuations (48%), unforeseen conditions on the jobsite (45%) and labor productivity challenges (35%).
- UK companies lead all regions in identifying inaccurate estimating as a root cause of profit erosion (36%).
- Canadian companies are the most frequent to report poor project reporting between field and office (33%) and lack of skilled labor (37%).

## Biggest Differences in Causes of Profit Margin Erosion (By Company Size)

Dodge Data & Analytics, 2022



# PROFITABILITY TRENDS

## Rework

### Impact on Profitability

#### Large Companies Are Most Susceptible to the Negative Impact of Rework on Profit

In addition to the root causes addressed on page 10, specialty contractors were also asked about the impact of unplanned rework on their profit margins.

- On average, specialty contractors report that about one third (32%) of their margin erosion can be tied to rework.
- As shown in the chart, larger companies far more frequently report a negative impact from rework, perhaps because their projects are often more complex.

#### Steel Contractors Face Highest Risk From Rework

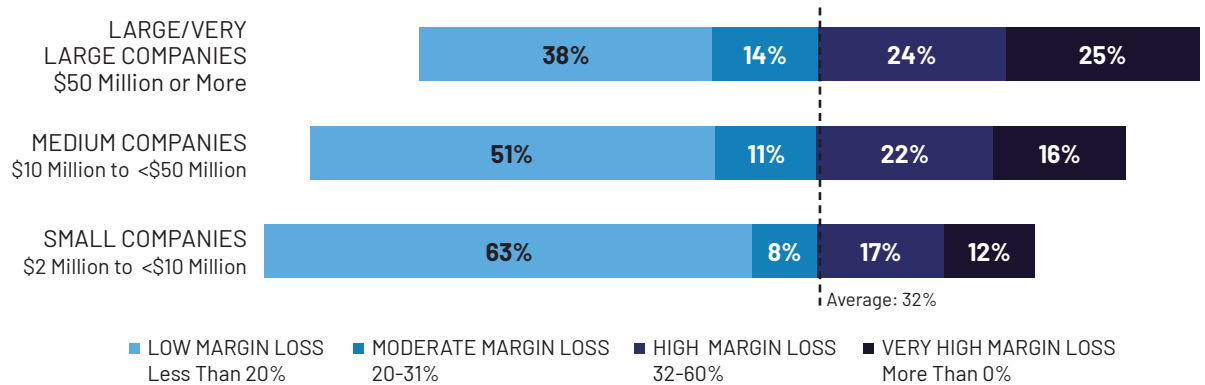
- Steel contractors are the most severely impacted overall, saying that rework typically accounts for 40% of their margin erosion across all sizes and regions.
- However, very large plumbing contractors are affected even more, reporting that rework typically accounts for 48% of their margin erosion. This probably reflects their high cost of materials.
- Concrete contractors (19%) are the least impacted, especially small companies for whom rework only accounts for 9% of their margin erosion.

#### US Contractors Report Lowest Impact

- US firms are far below average, with just a 19% typical margin impact from rework. Canada is highest at 40%.

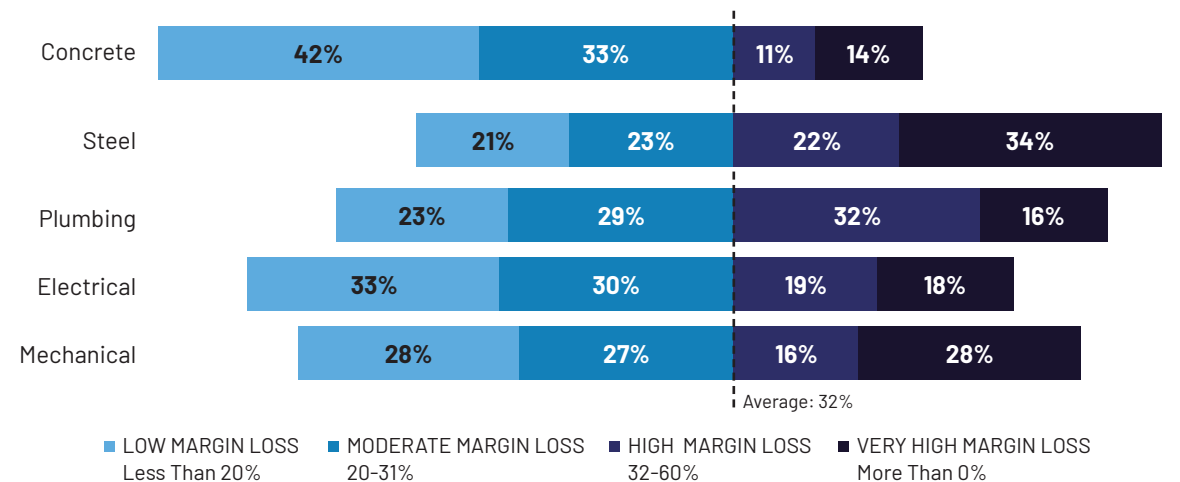
#### Percentage of Margin Erosion Caused by Rework (By Company Size)

Dodge Data & Analytics, 2022



#### Percentage of Margin Erosion Caused by Rework (By Trade)

Dodge Data & Analytics, 2022





## PROFITABILITY TRENDS

### Rework (CONTINUED)

#### Top Root Causes

#### Client Communication and Resource Management Are Top Causes of Rework

Specialty contractors were asked to identify the most important root causes of rework from the eight options shown in the table at right.

- While poor communication and resource management top the list, the narrow range of averages (27% to 37%) strongly suggests that all are impactful challenges.
- However, percentages vary meaningfully by trade for each rework driver (14% to 45%), providing insight on how they uniquely align with each trade's business.

#### Variations by Region and Company Size

The findings are generally consistent across regions, with the most variations coming from companies in the UK:

- An above-average percentage (45%) cite poor client communication.
- Below-average percentages identify poor team communication (26%) or outdated drawings and documents (18%).

Across company sizes:

- Fewer small companies cite client communication (25%) or lack of training (22%), although they far exceed the average for coordination issues (45%).
- Very large companies lead in client communications problems (44%).

#### Most Important Causes of Rework for Trade Contractors (By Trade)

Dodge Data & Analytics, 2022

	Mechanical	Electrical	Plumbing	Steel	Concrete	All
Poor Communication Between Us and the Client	36%	37%	30%	45%	36%	37%
Poor Planning and Management of Resources (i.e., labor, materials, equipment, etc.)	40%	31%	32%	44%	19%	36%
Poor Communication Among Our Team Members	32%	37%	36%	35%	36%	35%
Errors by Suppliers	39%	33%	35%	31%	25%	34%
Poor Multi-Trade Coordination	38%	31%	29%	27%	42%	32%
Lack of Field Training for Craft Labor	31%	30%	27%	31%	14%	29%
Outdated Drawings and Documents	28%	26%	24%	29%	39%	28%
Poor Change Management Processes	24%	25%	23%	32%	36%	27%

■ LOW <20%

■ MEDIUM 20-29%

■ HIGH 30-39%

■ VERY HIGH 40% or More

## Change Orders That Are Not Invoiced

### Large Specialty Contractors Lose the Most Revenue Due to Unrecovered Changes

Specialty contractors were asked how much revenue they lose because of unrecognized changes during construction that go unbilled and unpaid.

- On average, they report about a 30% revenue loss due to changes that are not invoiced.
- As shown in the chart at right, this particularly affects larger companies, perhaps because they tend to work on more complex projects where there is greater ambiguity about root causes and responsibility for changes.

### Variations by Trade

- Steel contractors are the most affected, reporting an average of 42% revenue loss due to unrecoverable changes. However, that drops to just 20% for small steel contractors, aligning with the overall finding that losses correlate to company size.
- Concrete contractors report the least impact, with an average of just 19% loss. Although that climbs to 31% for the very large companies, again demonstrating the correlation to size.

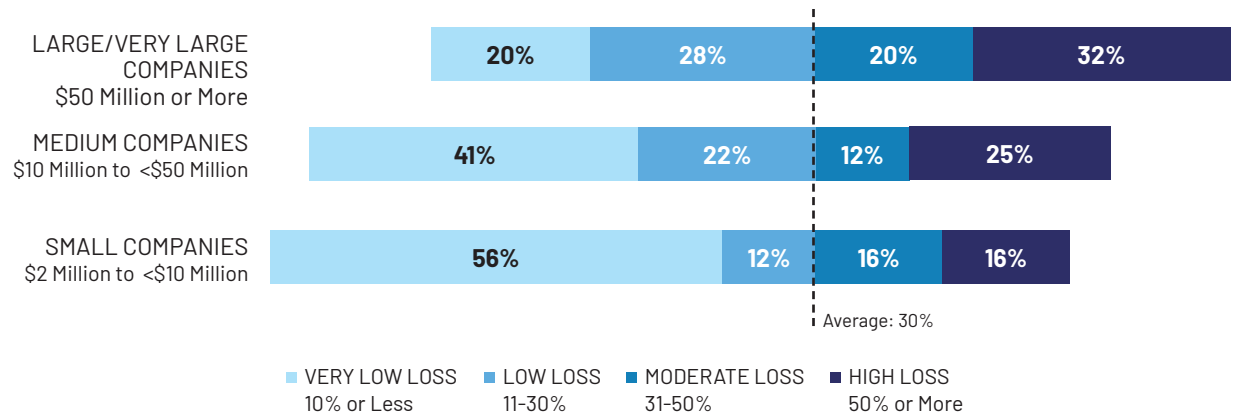
### Variations by Region

US companies report the lowest average loss (20%) while those in Canada and Australia/New Zealand both cite a 39% average.

### Percentage of Revenue Lost to Change Orders That Are Not Invoiced

(Among Respondents That Provided an Answer, By Company Size)

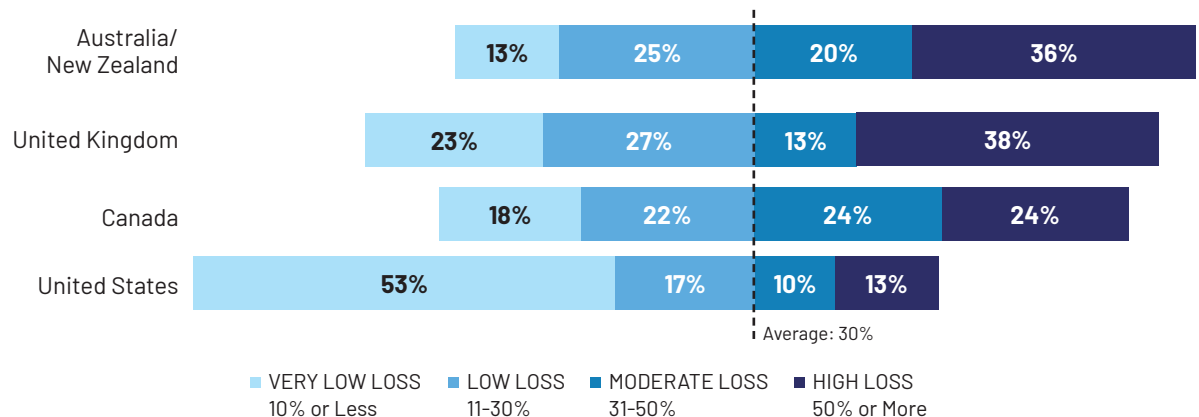
Dodge Data & Analytics, 2022



### Percentage of Revenue Lost to Change Orders That Are Not Invoiced

(Among Respondents That Provided an Answer, By Region)

Dodge Data & Analytics, 2022



# PROFITABILITY TRENDS

## Length of Time to Receive Payment

### Most Payment Periods Exceed 30 Days for Specialty Contractors

As shown in the chart below, only about a quarter of specialty contractors typically receive payment within 30 days of submitting an invoice.

- Findings across regions and company sizes are relatively consistent.
- This varies somewhat by trade, with about one-third of electrical (34%), concrete (33%) and mechanical (32%) contractors receiving payment within 30 days, but just 16% of steel contractors.

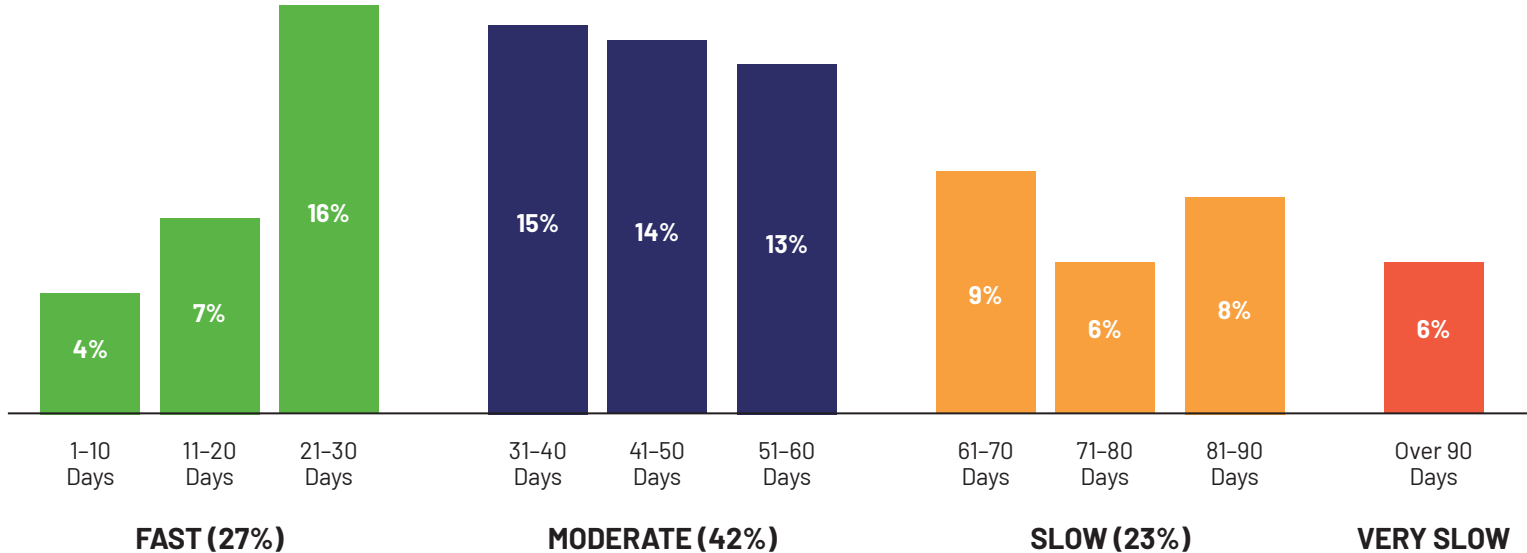
### Better Technology is Cited as the Best Way to Accelerate Payment

Specialty contractors were asked what they believe would help their company get paid faster with less conflict.

- Better software/technology and automating the process are the most frequently suggested approaches.
- Other suggestions include better contracts/legal protections and enforcing penalties for exceeding stated payment periods.

### Typical Length of Time Required for Trade Contractors to Receive Payment for Invoiced Work

Dodge Data & Analytics, 2022



# PROFITABILITY TRENDS

## Methods of Financing Materials Purchases

### Larger Companies Use Significantly More Debt to Purchase Materials

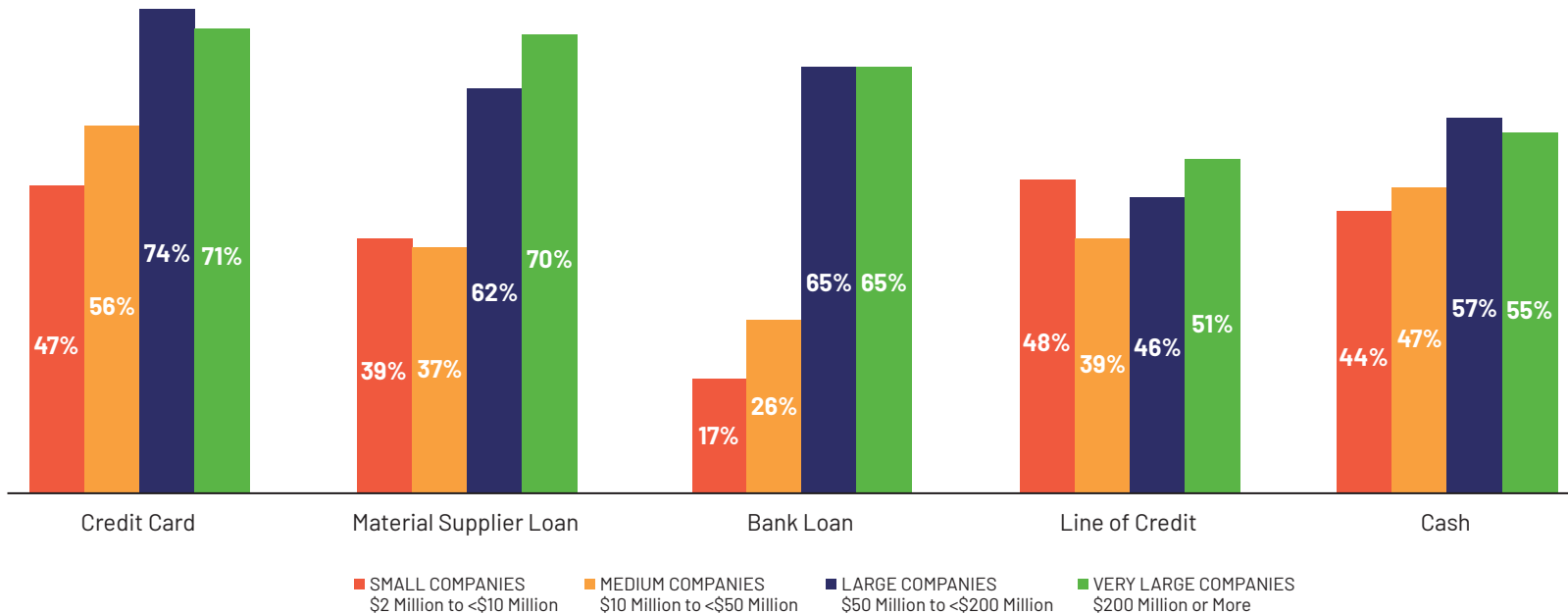
Specialty contractors were asked to select, from the options shown in the chart below, all the methods they currently use to purchase materials.

As shown, larger companies more frequently use every method, particularly debt instruments.

- Credit cards, bank loans and material supplier loans correlate directly with company size, probably reflecting lenders’ credit policies tied to company revenue and assets.
- However, the use of a line of credit, also a form of collateralized debt, is relatively consistent across size tiers.
- These findings do not vary significantly across regions or trades.

### Percentage of Specialty Contractors Using Each Method to Finance Materials Purchases (By Company Size)

Dodge Data & Analytics, 2022



# Supply Chain Disruptions

## Absorbing Materials Cost Increases

### Larger Companies Are Less Able to Pass Materials Cost Increases on to Owners

Specialty contractors were asked to identify the percentage of their projects on which they are not able to pass materials cost increases onto owners.

- On average, companies say they are unable to shift materials cost increases to clients on 39% of their projects.
- As shown in the chart at upper right, over one third of large/very large companies report this condition on half or more of their projects.

### Variations by Trade and Region

As shown at lower right, steel contractors are most affected, reporting this inability on an average of 45% of their projects.

- 49% of very large steel contractors have to absorb materials cost increases.
- This is particularly troubling because steel prices have been extremely volatile.

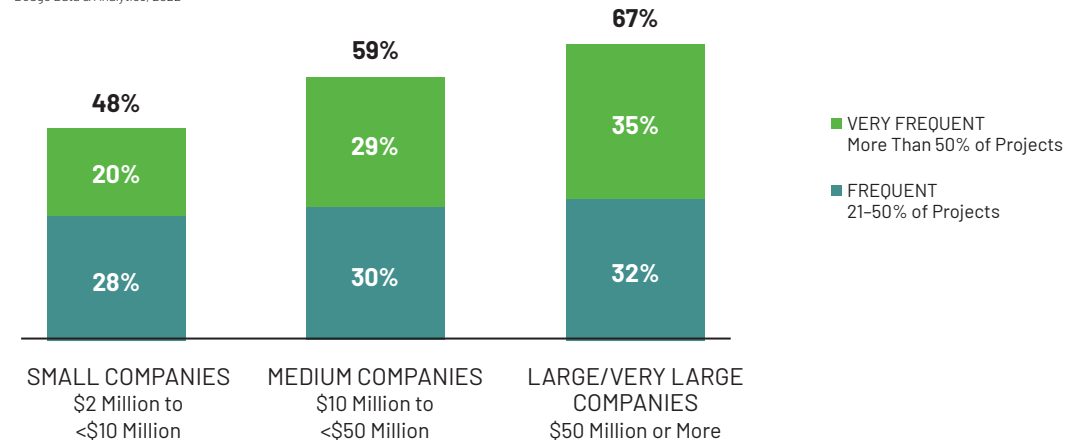
Concrete contractors show the least impact, with just 33% of their projects facing this situation. Interestingly, the impact of company size is reversed for this trade:

- Large/very large concrete contractors cite this occurrence on just 27% of their projects.
- Small organizations, however, report it on closer to half (45%).

Findings are generally consistent across regions.

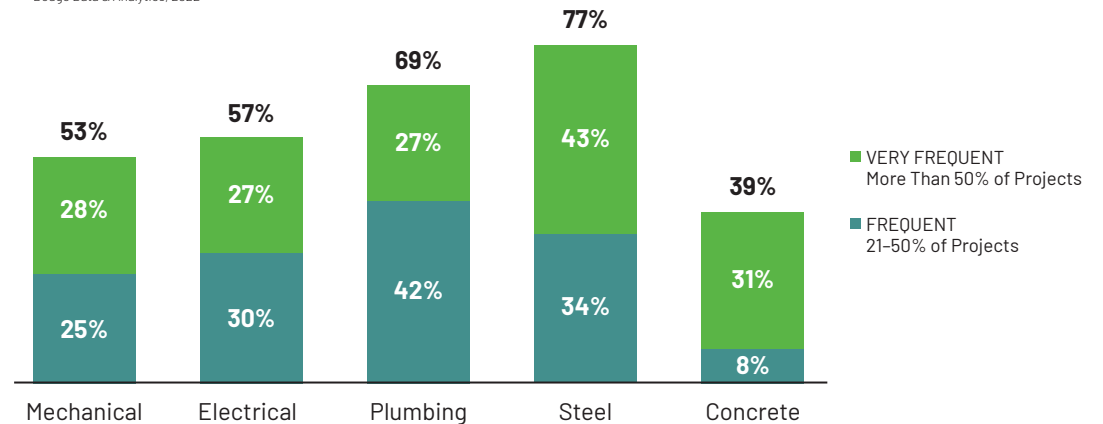
### Percentage of Projects Where Trade Contractors Are Unable to Pass Materials Cost Increases on to Project Owners (By Company Size)

Dodge Data & Analytics, 2022



### Percentage of Projects Where Trade Contractors Are Unable to Pass Materials Cost Increases on to Project Owners (By Trade)

Dodge Data & Analytics, 2022





## PROFITABILITY TRENDS

# Supply Chain Disruptions (CONTINUED)

## Planned Adjustments to Accommodate Disruptions, by Trade

### Price Increases Are Top Method Planned to Deal With Supply Chain Disruptions

Specialty contractors were asked to select, among the options shown in the table at right, approaches they plan on deploying to accommodate supply chain disruptions.

- In addition to raising prices, companies plan to seek more suppliers and offer more alternate products.
- Interestingly, concrete contractors are well above-average for two of the top three yet notably fewer cite suggesting alternates, perhaps because their choices are more limited than mechanical and plumbing trades, both of which are above average.
- Electrical contractors are below average for every approach except buying directly from manufacturers, suggesting they are either less affected by disruptions or do not believe any of these approaches will help them.
- Steel contractors are above average for every option, reflecting the severity of their supply chain situation.

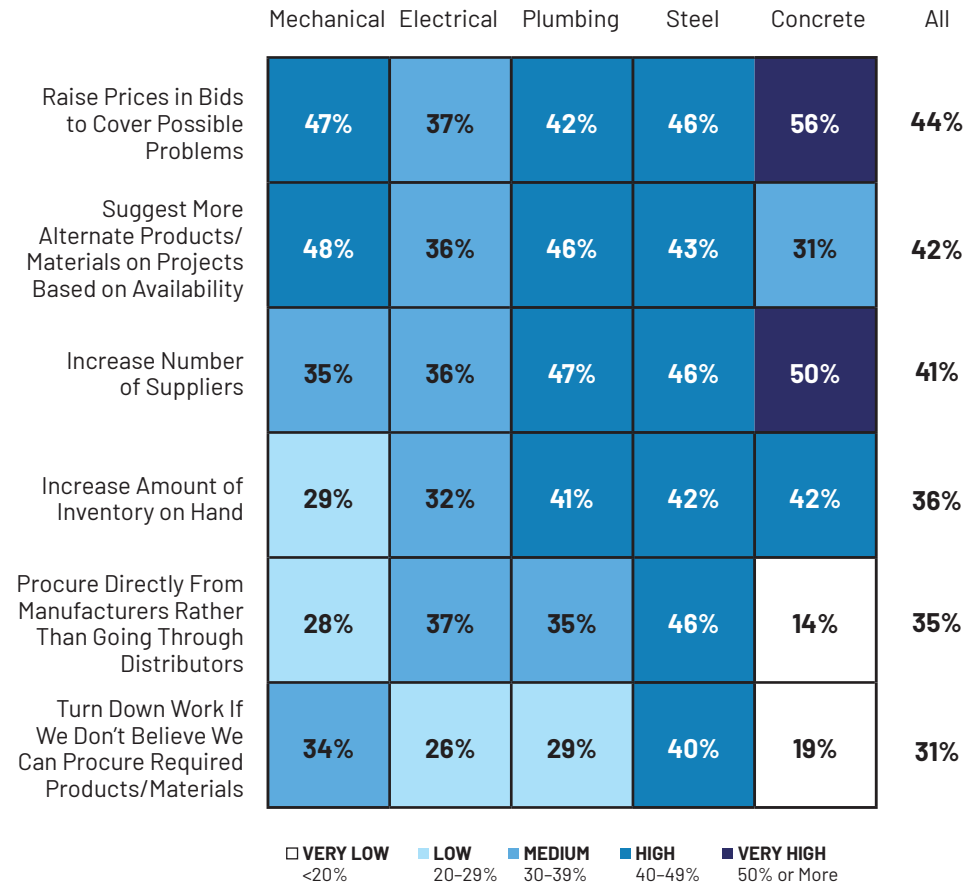
### Variations by Region and Company Size

- Plans to raise prices are notably more frequent among US companies (53%) and much less so in the UK (33%).
- Companies in Canada (42%) and Australia/New Zealand (40%) are the most likely to turn down work.
- Small companies are least likely to increase inventories (28%) or procure directly (17%), likely because of financial constraints.

### How Trade Contractors Plan to Adjust to Limited Shipping, Trucking and Supply Chain Constraints Over the Next 12 Months

(Percentage Selecting Each Approach, by Trade)

Dodge Data & Analytics, 2022



## Solutions Used for Financial Management

### Most Specialty Contractors Use Software for Financial Management

Specialty contractors were asked to select, among the options shown in the chart at upper right, which method they most frequently use to conduct financial management activities.

- 36% primarily use commercially available construction software, purpose-built for financial management.
- 27% either developed a financial management software solution internally or modified a more generic financial management software solution to work for construction.
- The remainder either use spreadsheets (23%) or still rely mostly on manual solutions (14%).

### Software Use by Trade

As shown in the chart at lower right, each trade is relatively close to the average (69%) for primarily using a software solution of some kind for financial management.

### Variations by Region and Company Size

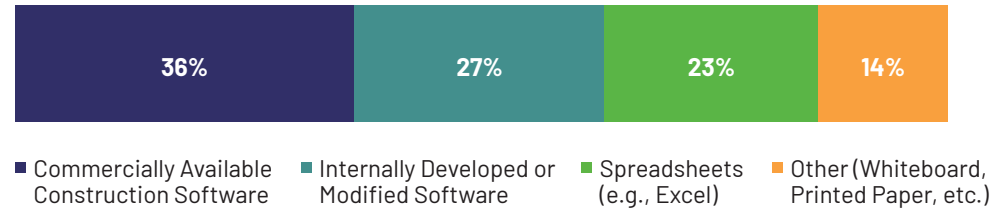
More companies in the US (70%) most often use a software solution for financial management than in other regions, particularly Canada (54%) and Australia/New Zealand (56%).

Software usage across company sizes is generally consistent.

### Most Frequent Method Used to Conduct Financial Management Activities

(Among All Respondents Who Provided an Answer)

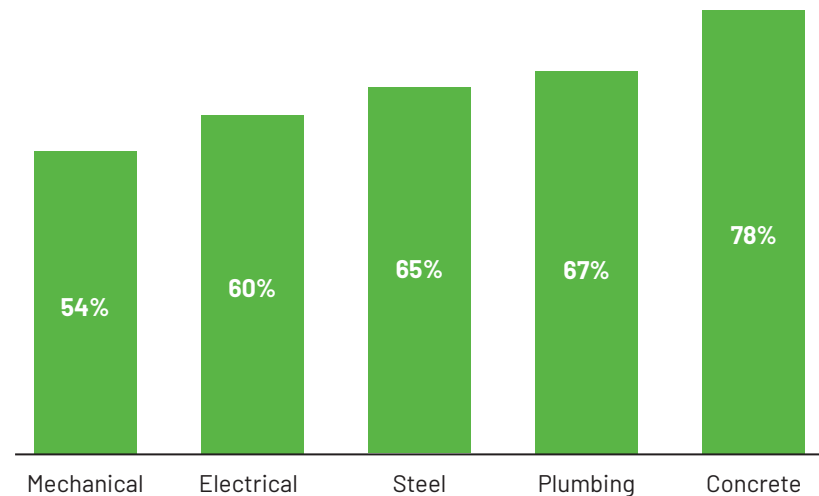
Dodge Data & Analytics, 2022



### Percentage That Use Software to Conduct Financial Management Activities

(By Trade)

Dodge Data & Analytics, 2022



# Workforce Management Trends

## Introduction

The global construction industry is facing a critical shortage of skilled workers that impacts specialty contractors' project and company performance.

This section of the report shares findings from the survey about:

## Impacts of The Workforce Shortage

- How labor shortages are impacting specialty contractors by region, trade and company size.
- The aspects of projects that are most negatively affected.

## Workforce Attrition

- The number of current staff likely to retire in the next five years.

## Labor Productivity

- The amount of time spent on unproductive tasks.

## Addressing the Workforce Shortage

- The company strategies and personnel-related measures that contractors plan to implement in order to counteract the negative impacts of labor shortages.
- Current and future use of offsite construction to optimize scarce labor resources.

## Technology for Workforce Management

- The use of software solutions for workforce management.

## Safety Management

- The most frequent causes of safety incidents on jobsites.
- The use of technology for safety management.



## Impacts of Workforce Shortage

### Canada And Australia/New Zealand Are the Most Severely Impacted Regions

Specialty contractors were asked what percentage of their projects are being negatively affected by the current shortage of skilled workers.

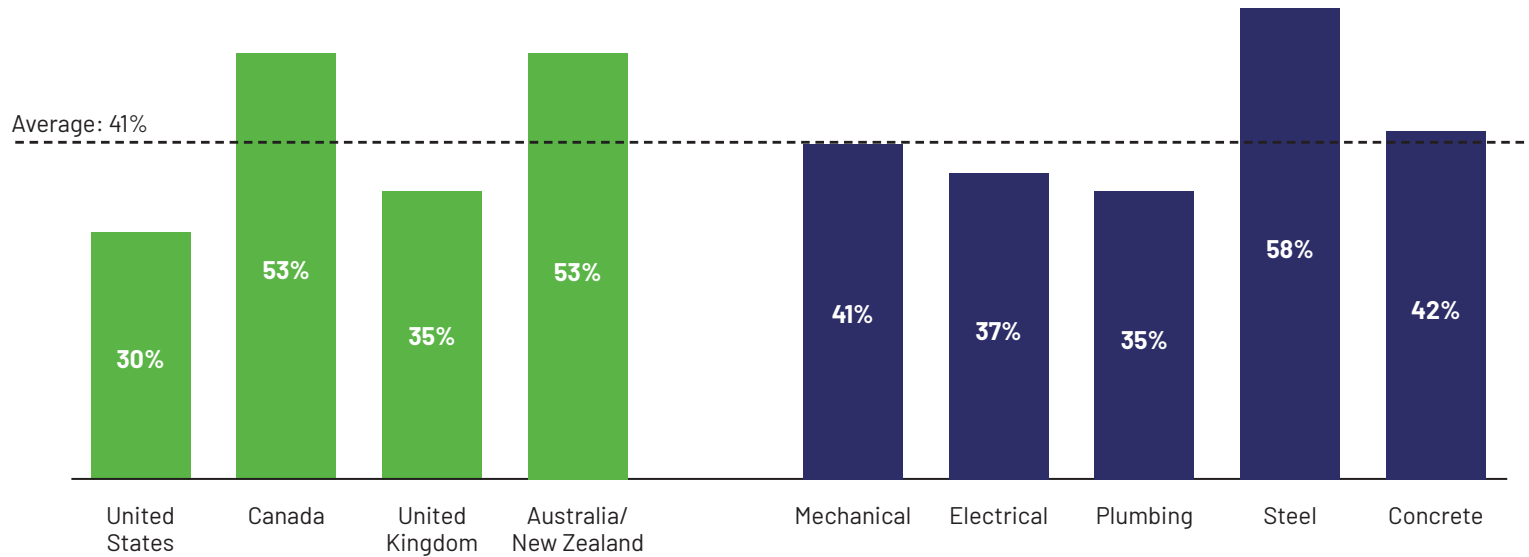
- Only 6% report no impact, and on average, 41% say that over half of their projects are affected.
- As shown on the lower left, Canada and Australia/New Zealand are both above average, while companies in the US are the least affected.

### Half of Steel Contractors Report Major Impact

- A much higher percentage of steel contractors reports negative impacts on more than half of their projects than any other trade. The other trades are near the average, so none are escaping the effect.
- Smaller companies are generally harder hit, especially small concrete contractors, half of whom report impact on 50% or more of their projects.

### Percentage of Specialty Contractors Reporting That 50% or More of Their Projects Are Being Negatively Impacted by the Current Labor Shortage (By Region and Trade)

Dodge Data & Analytics, 2022



## Impacts of Workforce Shortage (CONTINUED)

### Areas of Projects That Are Affected

#### Labor Shortages Cause Cost and Schedule Overruns for Half of Specialty Contractors

The chart shows how many companies report experiencing each type of negative impact from labor shortages and for each, how many consider it to be the most impactful.

- At least one third cite each, demonstrating the broad effect of labor shortages on project and company performance.
- Over half report project delays, which likely also worsen the already high impact on project costs.

#### Variations by Trade

- Steel contractors are particularly impacted, with 59% reporting cost issues, 48% saying quality is affected and 44% citing an increase in rework.
- 41% of plumbing contractors report cost issues related to labor shortages, possibly suggesting more efficient resource management at those companies compared to other trades.

#### Variations by Company Size

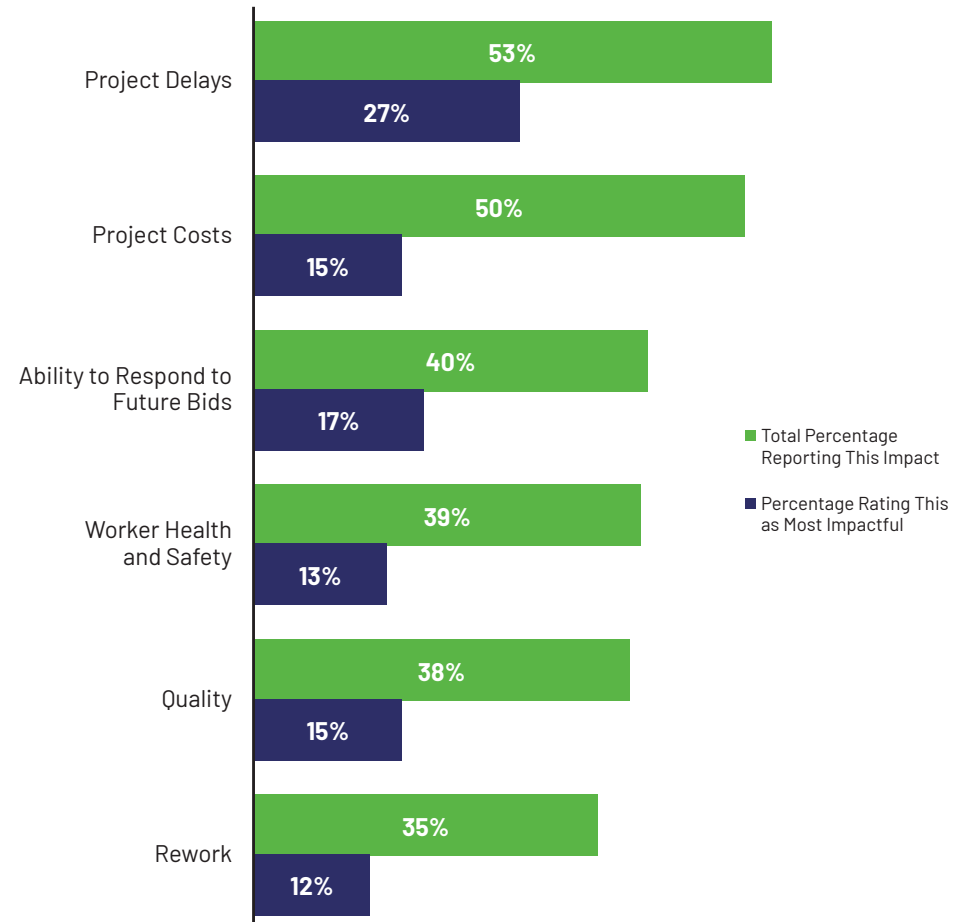
- Two thirds of small companies report project delays.
- Very large organizations more frequently suffer from cost overruns (58%), worker health and safety impacts (44%) and increased rework (45%).

#### Variations by Region

- Above average numbers of Canadian companies cite cost overruns (56%) and uncertainty about future bids (46%).
- 46% of companies in Australia/New Zealand cite worker health and safety impacts and increased rework.

#### Percentage of Trade Contractors Reporting Negative Impacts of Labor Shortages on Specific Elements of Their Projects

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# Workforce Attrition

## Impact of Retirements on Labor Shortage Over The Next Five Years

### On Average, Specialty Contractors Face the Loss of One Third of Their Overall Workforce From Retirements Over the Next Five Years

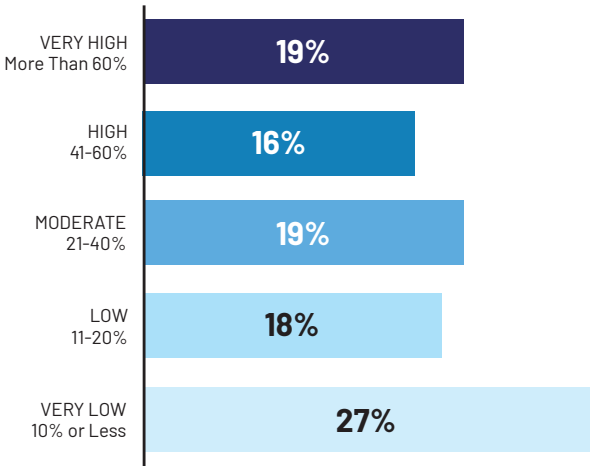
The charts on this page and the next show the impact across all companies and how it varies by region, trade and company size.

The chart below reveals the percentage of companies facing each of five loss levels over the next five years.

An average of 27% of companies face the potentially devastating loss of 50% or more of their staff over that time. The chart at right shows regional variances, with US companies least impacted, but one third of those in Canada and Australia/New Zealand poised to experience that severe degree of loss.

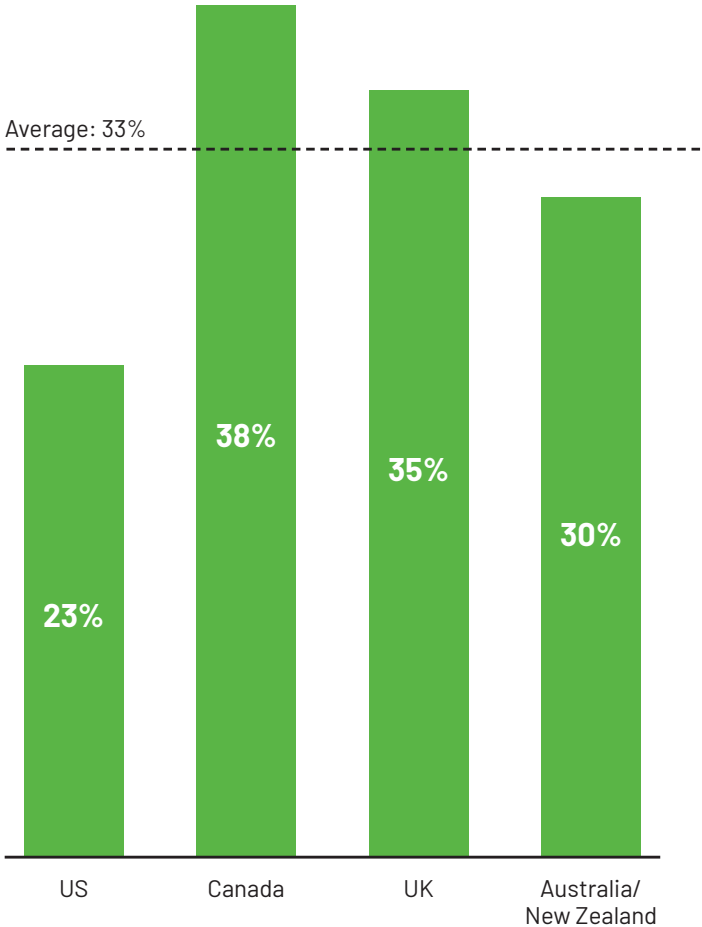
### Percentage of Companies Facing Five Levels of Overall Workforce Loss From Retirements in the Next Five Years

Dodge Data & Analytics, 2022



### Average Percentage of Company's Overall Workforce That Is Likely to Retire in the Next Five Years (By Region)

Dodge Data & Analytics, 2022



# WORKFORCE MANAGEMENT TRENDS

## Workforce Attrition (CONTINUED)

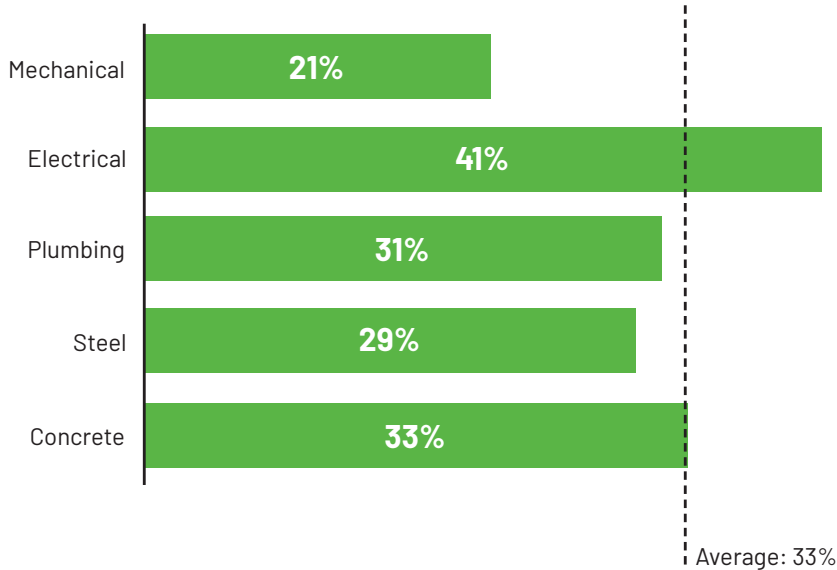
Impact of Retirements on Labor Shortage Over Next Five Years, by Trade and Region

### Electrical And Larger Companies Are At Greater Risk of Workforce Loss From Near-Term Retirements

- The chart below shows that among trades, electrical contractors are at the greatest risk, almost twice as high as mechanical companies. The other three are close to the industry-wide average (27%).
- Risk varies directly with company size, as shown in the chart at right, with large and very large organizations facing above-average losses.

### Average Percentage of Company's Overall Workforce That Is Likely to Retire in the Next Five Years (By Trade)

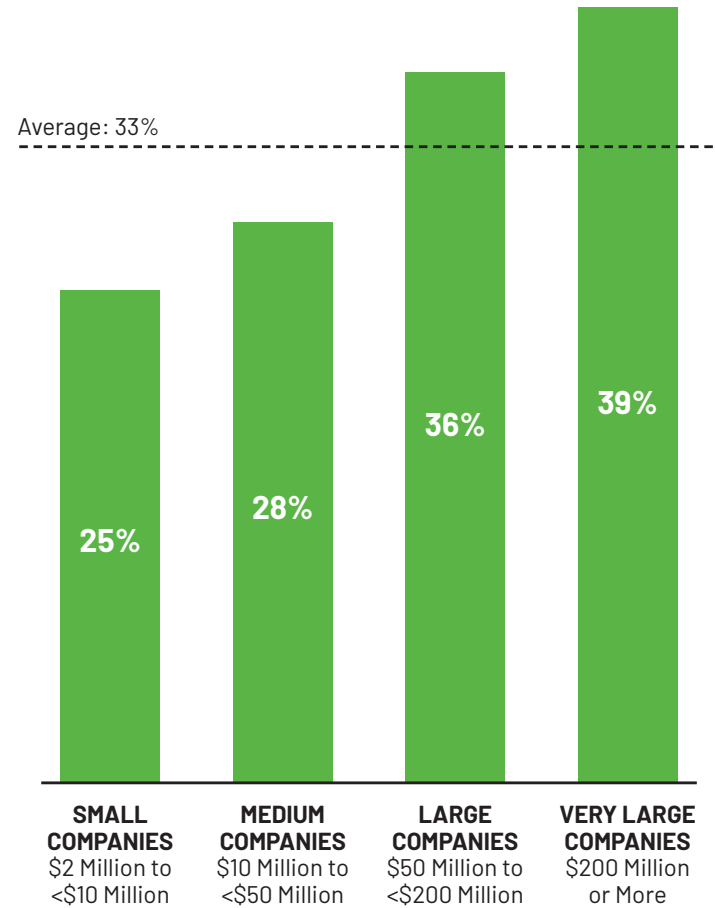
Dodge Data & Analytics, 2022



### Average Percentage of Company's Overall Workforce That Is Likely to Retire in the Next Five Years

(By Company Size)

Dodge Data & Analytics, 2022



# WORKFORCE MANAGEMENT TRENDS

## Labor Productivity

### Time Spent on Low Productivity Tasks

#### Specialty Contractors Report High Levels of Unproductive Time

Given the severity of workforce shortages, optimizing the productivity of current workers should be a top priority for specialty contractors. But on average, they report that employees spend 20% of their time on low-productivity tasks (e.g., tracking down information, documenting information on paper, etc.). The charts on this page show the variations between regions, trades and company sizes for how many report above-average rates (i.e., 21% or higher)

#### Regionally, UK Companies Report the Most Unproductive Time

- Over half report above average rates, versus the US with just 29%.

#### Among Trades, Electrical Contractors Report the Highest Level of Unproductive Time

- Although their above-average total equals the UK (55%) they have the largest portion exceeding 30% of time spent on low productivity tasks.
- Mechanical contractors are the least unproductive and are the only group with less than one quarter reporting above-average rates.

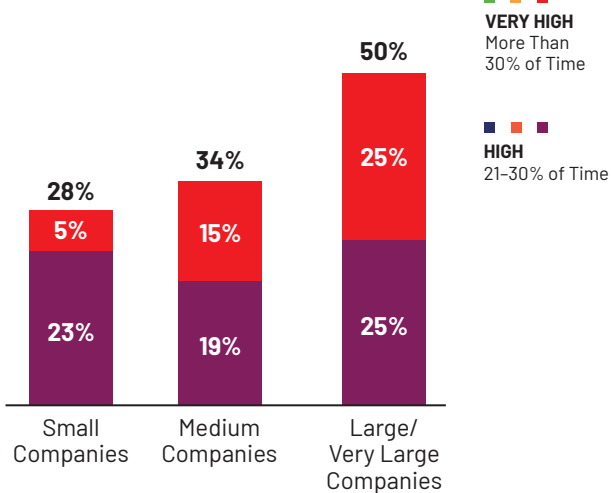
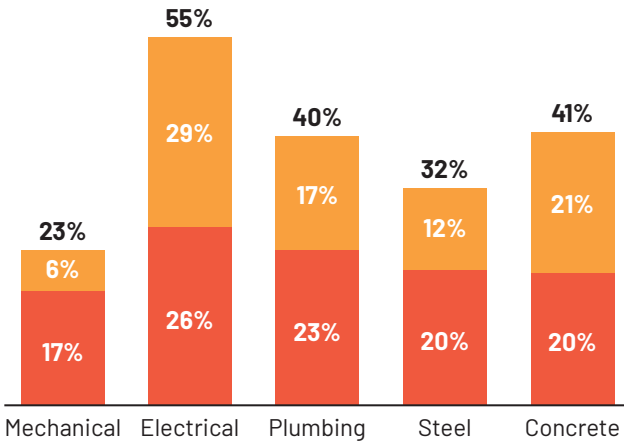
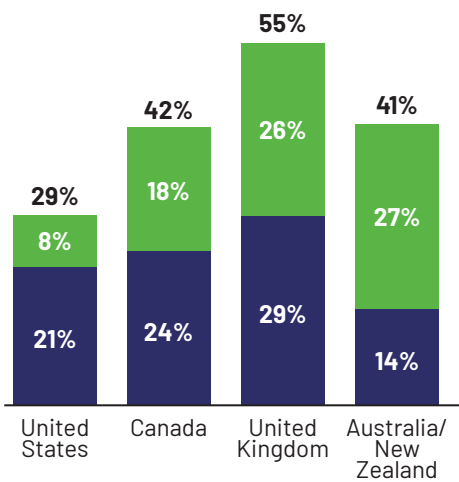
#### Larger Companies Are Notably Less Productive

- Half report above-average rates, nearly twice as many as small companies. This may reflect the complexities of interdepartmental coordination in larger organizations.

### Percentage of Companies Reporting Above Average (> 20%) Time Spent on Low-Productivity Administrative Tasks

(By Region, Trade and Company Size)

Dodge Data & Analytics, 2022



# Addressing the Workforce Shortage

## Company Strategy Measures

### Construction Technology Is Top Strategy-Related Countermeasure

When asked what company strategies they are implementing to counter the negative impact of labor shortages, specialty contractors most frequently cite construction technology investments to improve productivity.

- The percentages vary directly by size, with an average of just one quarter of small companies citing these strategies versus 40% of very large organizations.
- In spite of these variations between company sizes, the total averages for each strategy are in a narrow range between 31% and 35%, indicating that they are all seen as potentially valuable.

### Variations by Trade and Region

- Half of mechanical contractors (48%), are investing in technology, compared with notably fewer concrete contractors (19%).
- 43% of steel contractors are increasing jobsite automation versus just 17% of concrete contractors.
- Jobsite automation also varies by region, with US companies (25%) significantly lagging those in Canada and Australia/New Zealand (both 38%).

### Strategy-Related Actions to Counter the Negative Impacts of Labor Shortages (By Company Size)

Dodge Data & Analytics, 2022

	<b>SMALL COMPANIES</b> \$2 Million to <\$10 Million	<b>MEDIUM COMPANIES</b> \$10 Million to <\$50 Million	<b>LARGE COMPANIES</b> \$50 Million to <\$200 Million	<b>VERY LARGE COMPANIES</b> \$200 Million or More
Construction Technology Investments to Improve Productivity (i.e., do more with less)	26%	34%	39%	39%
Increased Use of Offsite Construction (e.g., prefab, modular, pre-engineered, etc.)	18%	33%	39%	43%
More Strategic Partnerships with Other Contractors	29%	31%	40%	35%
Increased Use of Jobsite Automation	22%	25%	36%	42%

■ <b>LOW</b> <20%	■ <b>MEDIUM</b> 20-29%	■ <b>HIGH</b> 30-39%	■ <b>VERY HIGH</b> 40% or More
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## Addressing the Workforce Shortage (CONTINUED)

### Personnel Measures

#### Retaining Current Staff is Most Frequent Personnel-Related Approach

When asked about personnel-related strategies, the top focus is on keeping current staff, followed closely by increased recruiting.

The average percentages identifying each strategy are in a broader range (32% to 43%) than the company-strategy measures addressed on the previous page. This suggests that the most emphasis is being placed on retention and recruitment efforts.

#### Variations by Trade and Region

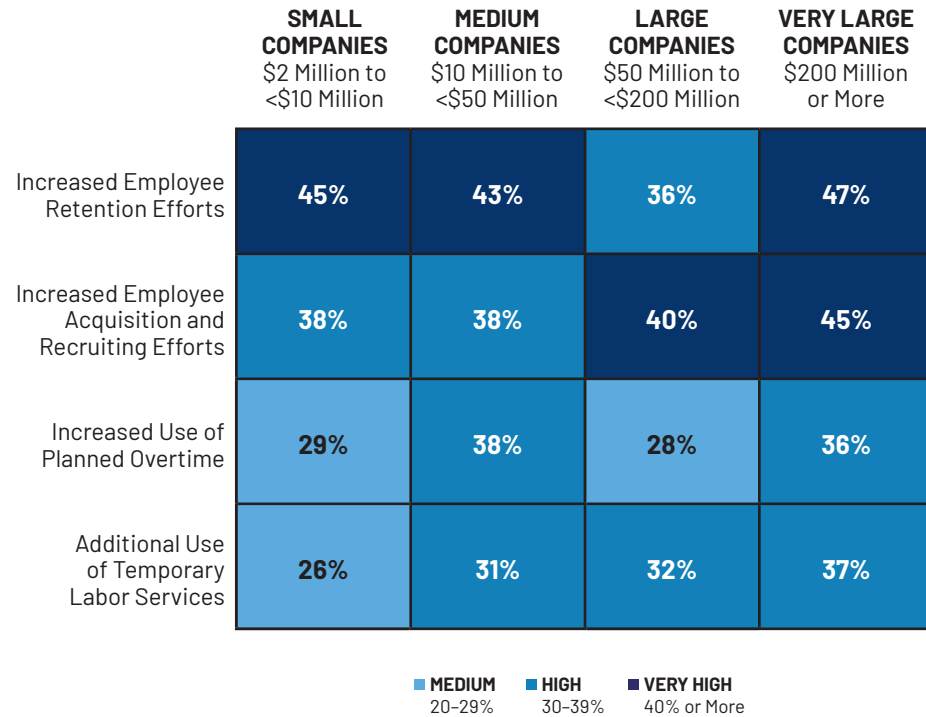
Although retention and recruitment are priorities, both overtime and contract labor increases are being selectively implemented by specific trades:

- 40% of plumbing contractors are increasing planned overtime versus just 27% of electrical contractors.
- More steel contractors are deploying temporary labor (40%), while only 23% of plumbing contractors plan to.

Findings are generally consistent across regions.

#### Personnel-Related Actions to Counter the Negative Impacts of Labor Shortages (By Company Size)

Dodge Data & Analytics, 2022



## Addressing the Workforce Shortage (CONTINUED)

### Offsite Construction to Optimize Labor Resources

#### Steel Contractors Will Maintain Their Leadership in Offsite Construction

Previous research by Dodge Data & Analytics has demonstrated that leveraging offsite construction is an effective way to optimize scarce labor resources. That research also shows that offsite construction is safer, generates less waste and can have significant quality and schedule benefits.

As shown in the chart:

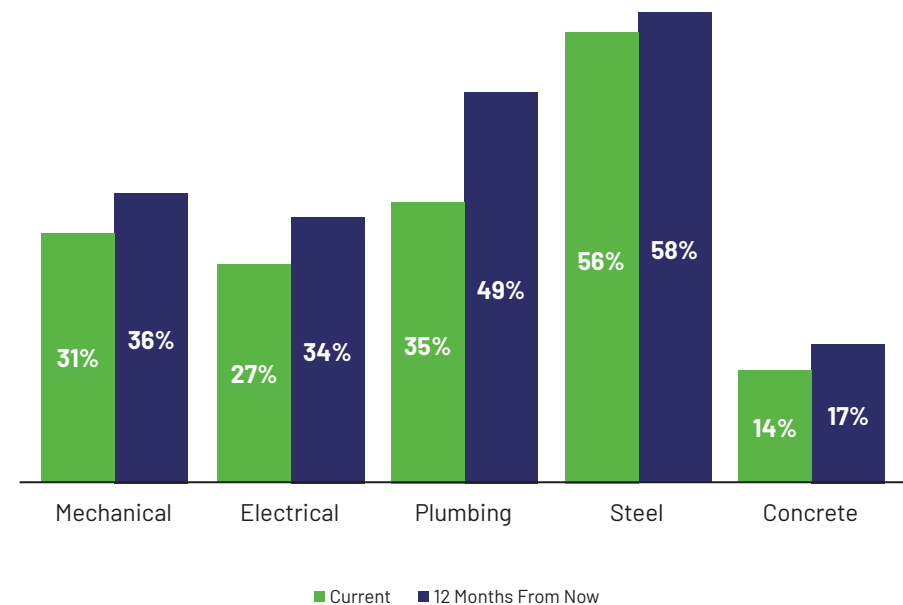
- Steel contractors lead other trades in both current and future use of offsite construction.
- While all MEP companies plan significant increases over the next 12 months, plumbing contractors expect a 14% jump.
- Concrete does not lend itself to shifting production offsite since pours need to happen at the site. Labor shortages among concrete contractors may spur designers to increase their use of precast elements, but those are typically provided by specialized producers and installers.

#### Variations by Company Size and Region

- Only 23% of small companies currently earn half or more of their revenue from offsite work, although that is slated to increase sharply to 35% over the next year.
- US organizations follow a similar pattern with 26% highly engaged today and 35% planning to be within a year.
- Canada leads the regions with 47% already making half of their revenue from offsite work and a forecast that 50% will be at that level 12 months from now.

**Percentage Receiving More Than 50% of Revenue From Offsite Construction: Current and 12 Months From Now (By Trade)**

Dodge Data & Analytics, 2022



# Technology for Workforce Management

## Use of Software Solutions

### Steel and Plumbing Contractors Lead Other Trades in Use of Workforce Management Software Solutions

Although some specialty contractors report using whiteboards, paper forms and spreadsheets for workforce management, the chart shows, by trade, how many currently use one of two types of software:

- A commercially available construction software solution purpose-built for workforce management.
- A workforce management software solution that was either internally developed or was created by modifying a non-industry-specific product to work for construction.

On average, 55% use a software solution, with steel and plumbing contractors exceeding the average.

### Commercial Solutions Are Most Frequent for Workforce Management

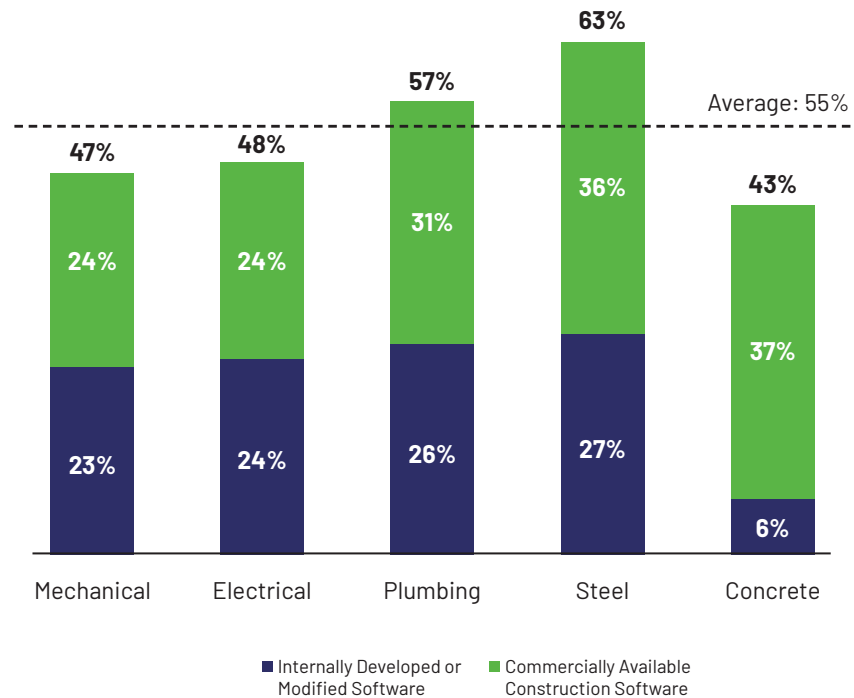
- While percentages vary across trades, commercial solutions consistently equal or outnumber internal approaches.
- This is particularly true for concrete contractors, suggesting they may have less internal capabilities to develop and support their own solutions.

### Variations by Company Size and Region

- Only 39% of small companies report using a software solution.
- Regional findings are generally consistent.

**Percentage of Trade Contractors Using Software for Workforce Management Activities** (By Trade)

Dodge Data & Analytics, 2022





# Safety Management

## Causes of Safety Incidents

### Reasons for Safety Incidents Vary Significantly Across Trades

Jobsite safety is a key element of workforce management. The table shows the percentage of specialty contractors, by trade, that identifies each issue as a cause of safety incidents on their jobsites.

- While averages for each issue range from 25% to 43%, individual ratings vary more widely (9% to 59%). This provides insight into the unique safety-related aspects of each trade.

### Variations by Company Size and Region

Findings also vary by company size.

- Small companies more frequently say distractions cause safety incidents but they trail larger companies for every other issue. This suggests these companies could benefit from a specific focus on reducing distractions.
- Interestingly, more very large companies report insufficient new worker training, although larger organizations often have more training resources.

Regions are generally consistent with a few above-average findings.

- 60% of US companies cite distractions.
- 43% of companies in Australia/New Zealand point to the behavior of other trades.
- 37% of UK companies identify overtime.

### Top Reasons Trade Contractors Experience Safety Incidents (By Trade)

Dodge Data & Analytics, 2022

	Mechanical	Electrical	Plumbing	Steel	Concrete	All
Distractions or Inattention	54%	42%	34%	38%	59%	43%
Unsafe Conditions on the Jobsite Tolerated by the GC	31%	28%	40%	36%	24%	33%
Behavior/Practices of Other Trades on the Project	27%	33%	27%	44%	38%	33%
Insufficient Training of Newer Workers	34%	24%	31%	36%	32%	32%
Overtime	25%	26%	24%	31%	15%	26%
Lack of Sufficient PPE (Personal Protective Equipment)	26%	14%	28%	37%	9%	25%

■ **VERY LOW** <10%  
 ■ **LOW** 11-19%  
 ■ **MEDIUM** 20-29%  
 ■ **HIGH** 30-39%  
 ■ **VERY HIGH** 40-49%  
 ■ **EXTREMELY HIGH** 50% or More

**Safety Management** (CONTINUED)

*Technology Used by Specialty Contractors for Safety*

**Larger Companies Are Far More Engaged With Technology for Safety Management**

The chart compares the percentages of larger and smaller companies that are engaged with (i.e., either actively considering, planning to adopt or already implementing) four types of technology for safety management.

- An average of 32% of large/very large companies report already implementing these four technologies compared with just 23% of smaller companies. This aligns with many other findings in this report that show deeper engagement with technology at larger organizations.

**Variations by Trade and Region**

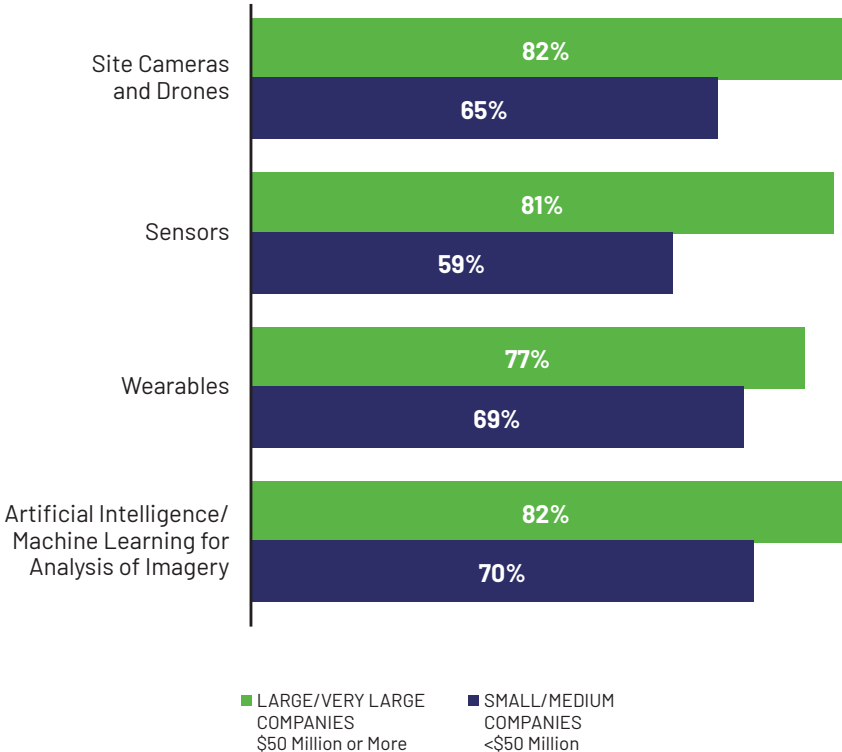
Findings are generally consistent across trades but show a few regional variations.

- Canadian companies outpace other regions in the percentages already implementing sensors(34%) and site cameras and drones(33%).
- The US lags(14%) in the number already implementing artificial intelligence/machine learning for analysis of imagery.

**Percentage of Trade Contractors Considering, Planning to Adopt or Already Implementing Technologies for Safety**

(Totals by Company Size)

Dodge Data & Analytics, 2022



# Construction Technology Trends

## Introduction

The global construction industry has an increasing number of technology solutions for construction activities, but many specialty contractors are still using traditional processes.

This section of the report shares findings from the survey about:

## Technology Solutions

- The percentage of companies using software versus traditional methods (e.g., spreadsheets or manual processes) for construction activities.
- How that usage varies across preconstruction, project execution and construction performance analysis activities.
- Software use by each trade for those three construction activities.
- The quality of field-to-office communication and the role technology could have in improving it.

## Driving Greater Adoption of Construction Technology

- The percentage of companies using mostly manual approaches to 15 specific construction processes.
- The top obstacles for specialty contractors in advancing the adoption and use of technology.



# Construction Technology Solutions

## Most Frequent Methods

### Over 60% of Specialty Contractors Primarily Use Software for Key Construction Activities

Although many specialty contractors use several methods to manage construction activities, there is typically a primary solution.

The chart shows the percentages designating each of four solution types as their primary, averaged across three construction activities: Preconstruction, Project Execution and Performance Analysis.

- A total of 61% use a construction-specific software solution, either commercially available construction software (31%) or software they developed internally or adapted by modifying a non-industry-specific product to work for construction (30%).
- The other 39% still most often use spreadsheets, whiteboards, paper forms or other traditional approaches.

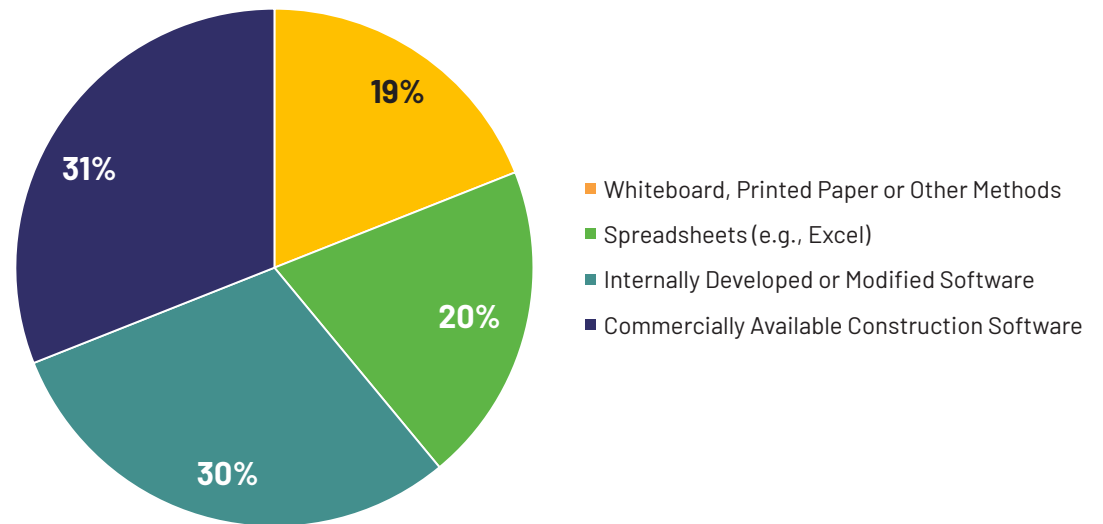
### Variations by Trade, Company Size and Region

The following pages provide more detail on the differences between trades, company sizes, and regions for each of the solution types across the three key construction activities studied.

### Most Frequent Method to Manage Key Construction Activities (Preconstruction, Project Execution and Performance Analysis)

(Among Respondents Who Selected an Option Shown in the Chart)

Dodge Data & Analytics, 2022



# Construction Technology Solutions (CONTINUED)

## Preconstruction

### Larger Companies Are Most Likely to Use Internally Developed Software for Preconstruction

As the chart shows, almost half of the small companies still use spreadsheets or manual processes for preconstruction activities. Medium-sized organizations use notably more software solutions, and among those companies, there is a preference for commercial products.

The trend towards more construction-specific software use continues with larger companies although the balance sharply shifts toward internally developed solutions. This may be because larger companies devoted resources to developing their internal solutions relatively long ago and they are now deeply embedded and hard to displace with commercial substitutes.

#### Variations by Region and Trade

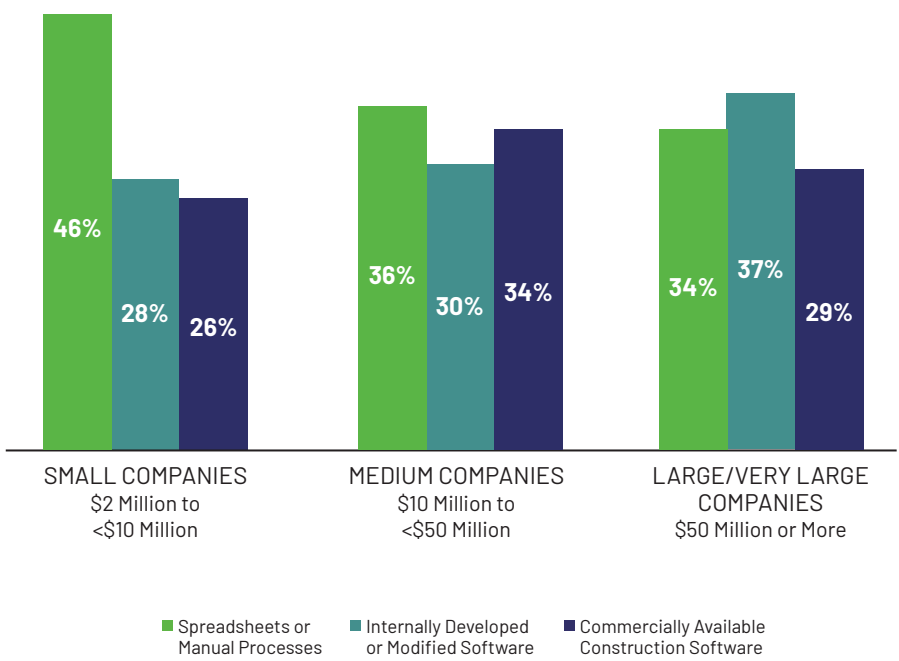
- 42% of companies in Australia/New Zealand use spreadsheets or manual processes for preconstruction, versus just 29% in Canada.
- Steel contractors (41%) are most likely to use internally developed software for preconstruction and concrete companies (41%) dominate for commercial solutions.

Page 37 of this report provides more detail on software usage by trades for the three construction activities studied.

### Most Frequent Method to Manage Preconstruction

(Among Respondents Who Selected an Option in the Chart, by Company Size)

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# Construction Technology Solutions (CONTINUED)

## Project Execution

### Half of Small Companies Still Rely on Traditional Methods to Manage Project Execution Activities

As with preconstruction, about half of small companies continue to use traditional methods for project execution. Among those using construction-specific software, commercial solutions are much more frequent than in preconstruction.

Medium-sized organizations use far more construction-specific software than small ones, with a slight preference for home-grown solutions over commercial ones.

The trend towards more use of construction-specific software continues with larger companies, as well as a preference for internally-developed solutions, though somewhat less than in preconstruction.

#### Variations By Region And Trade

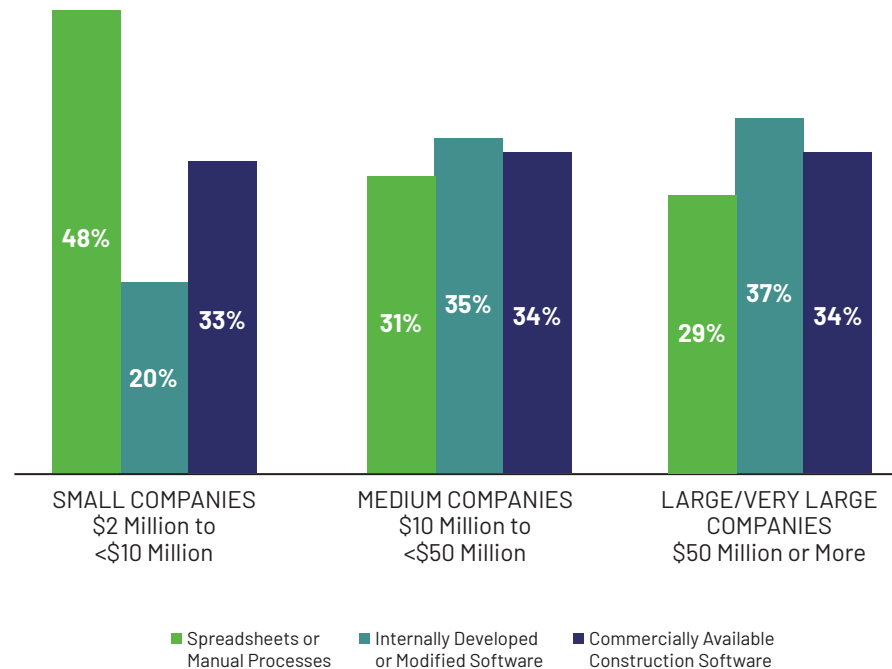
- 83% of UK companies are using construction-specific software solutions for project execution versus just 62% in the US.
- Nearly half (46%) of concrete contractors use commercial software solutions compared to about one-third for each of the other trades.

Page 37 of this report provides more detail on software usage by trades for the three construction activities studied.

### Most Frequent Method to Manage Project Execution

(Among Respondents Who Selected an Option Shown in the Chart, by Company Size)

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# Construction Technology Solutions (CONTINUED)

## Construction Analysis

### About Three Quarters of Specialty Contractors Use a Construction-Specific Software Solution for Performance Analysis Activities

Construction-specific software solutions are far more prevalent for construction analysis activities than preconstruction or project execution. This is probably a natural outgrowth of the ability of project execution solutions to generate performance data that can then be efficiently analyzed by these programs.

Most companies rely on a commercial solution for this activity, especially mid-sized organizations.

#### Variations by Region and Trade

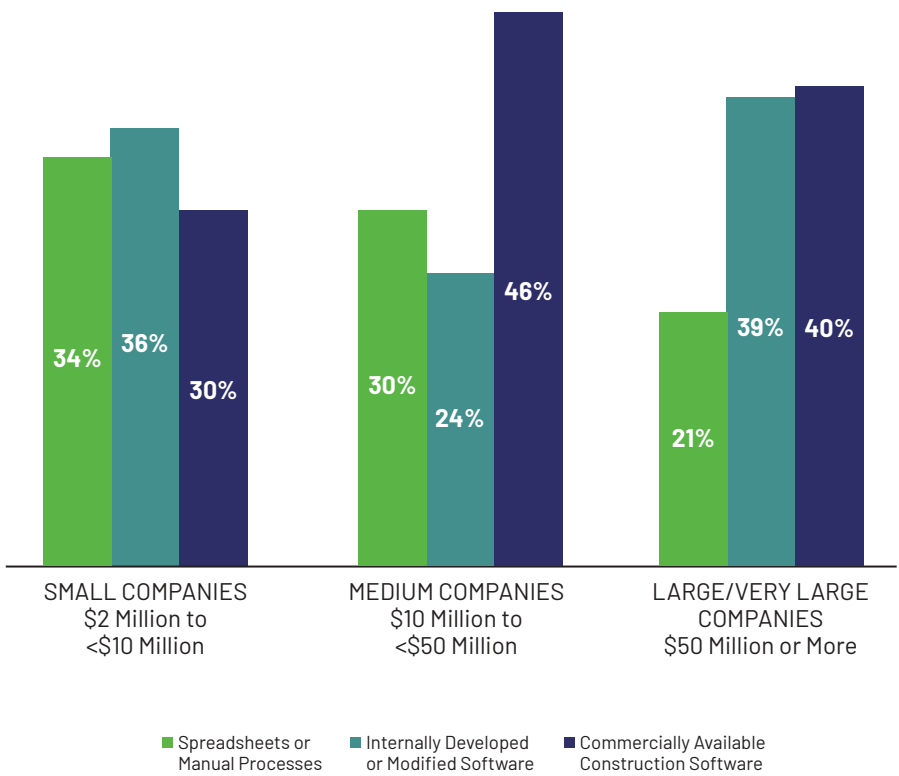
- Over 80% of UK companies are using software solutions for construction analysis versus just 67% in Canada.
- Software use is generally consistent across the trades, although among those using a solution, steel contractors are most likely to deploy an internally developed one.

Page 37 of this report provides more detail on software usage by trades for the three construction activities studied.

### Most Frequent Method to Analyze Construction Performance

(Among Respondents Who Selected an Option in the Chart, by Company Size)

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# Construction Technology Solutions (CONTINUED)

## Software Use by Trades

### Steel Contractors Use Construction-Specific Software for Construction Activities Much More Frequently Than Other Trades

The chart shows the average percentage, by trade, of companies that primarily use a construction-specific software solution for each of the three construction activities shown.

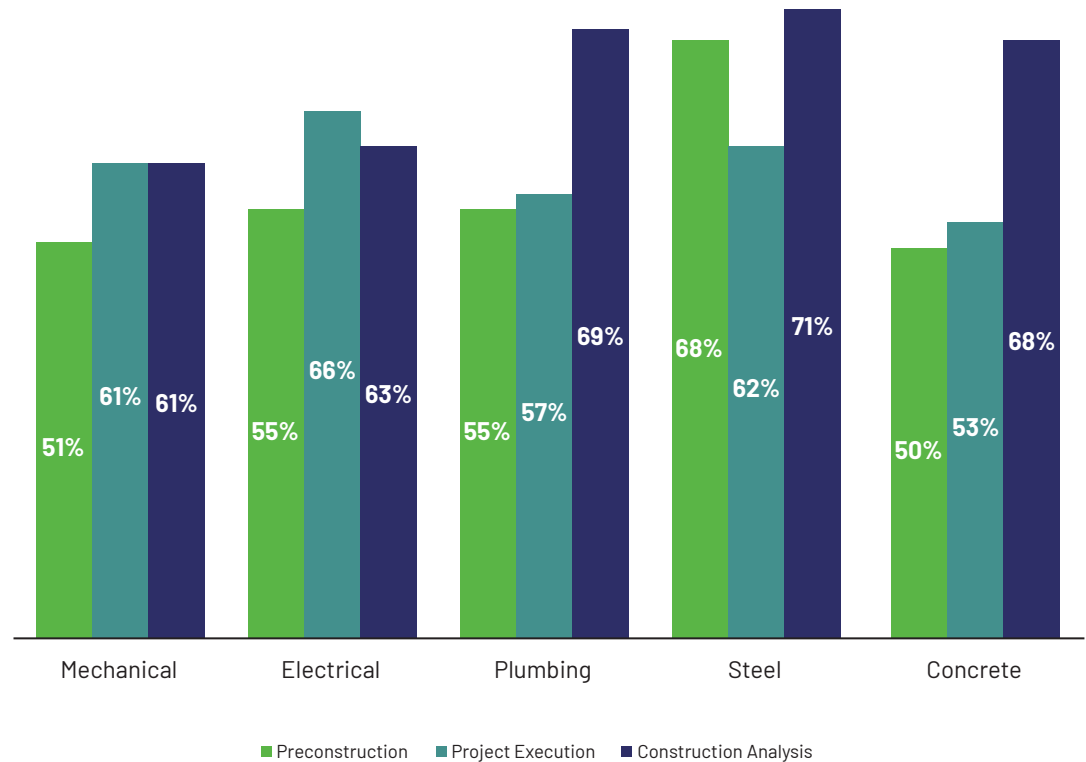
- Steel contractors outnumber other trades for every activity. This aligns with other findings in this report that show a deeper engagement with technology by steel contractors than by other trades.
- Construction analysis shows the most use across the trades and is relatively consistent (61% to 71%). This probably reflects the more recent emergence of this activity, made more valuable by the increasing amount of data generated during construction.

Overall, the significant variations between trades and across activities reflect the evolving nature of technology adoption and implementation by specialty contractors.

- Page 38 of this report examines the critical role of effective field-to-office communication in optimizing performance and how a technology solution might accelerate improvement.
- Pages 39 and 40 of this report look more deeply into driving greater technology adoption and usage at specialty contracting companies.

### Use of Software for Key Construction Activities (By Trade)

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# Construction Technology Solutions (CONTINUED)

## Field-to-Office Communications

### Most Specialty Contractors Say Field-to-Office Communication Needs Improvement

The physical distance between specialty contractors' offices and their jobsites hampers effective information flow, which can negatively impact project performance as well as the effectiveness and value of technology solutions.

- One quarter of specialty contractors say that poor reporting between field and office is a major cause of profit margin erosion. (See page 10 of this report.)

When asked about the current quality of field-to-office communication at their company, only one-in-three rate it as excellent, with even fewer (23%) in the UK, and just 18% of small companies.

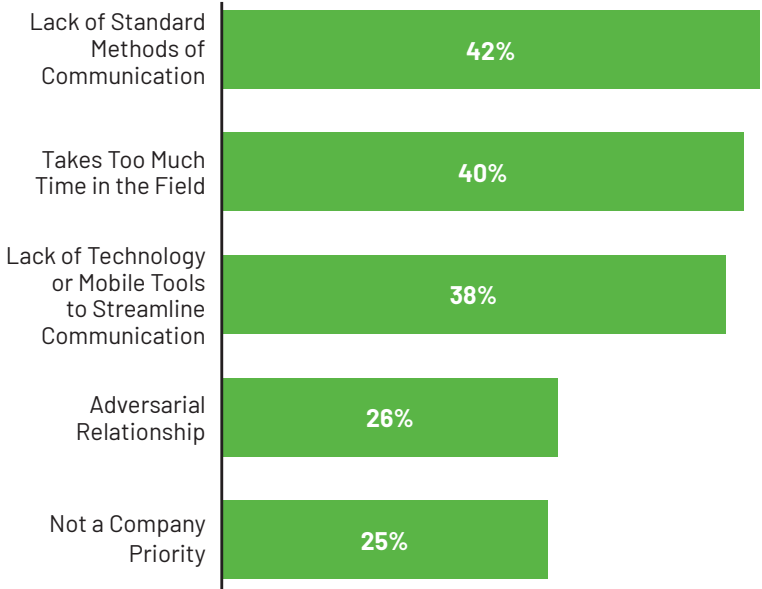
### Technology to Speed And Standardize Communication Is Top Need

To identify the top obstacles to better field-to-office communication, specialty contractors were asked to identify the most important ones from the list of five shown in the chart.

- The nearly equal numbers citing standards, time required and technology suggest that leveraging technology to implement standards and speed up the process will be the most effective path to improvement.
- Fortunately, fewer companies report an adversarial relationship between field and office or say better communication is not a company priority, clearing the way for a technology solution to make a significant positive impact.

### Top Issues With the Quality of Communication Between the Field and the Office

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# Driving Greater Adoption of Construction Technology

## *Persistence of Manual Methods for Documentation and Communication*

### Leaders Need to Help Their Companies Overcome Reliance on Traditional Processes

A consistent finding in this research is the continuing use of traditional methods to conduct key activities. Company leaders need to identify where this is happening in their organization and develop plans to implement more efficient solutions.

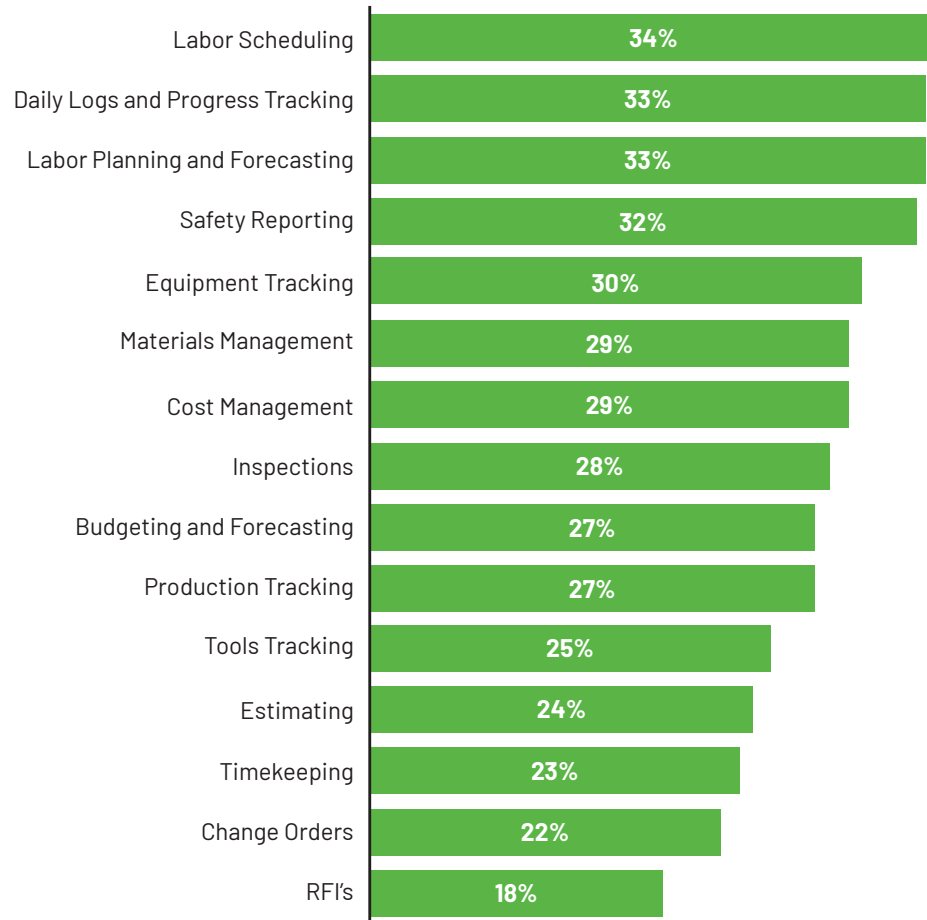
The chart shows the percentages of specialty contractors that still conduct each of 15 activities with mostly manual methods for communication and documentation.

- In spite of the workforce shortage, about one third still use manual methods for labor scheduling and planning as well as safety reporting. This area is particularly suited to improvement with purpose-built technologies.
- Critical site-related activities such as equipment and material management are also handled manually by about one-in-three companies.

The following page examines the top organizational obstacles to technology adoption and usage, providing a guideline for what areas need to be addressed in order to advance.

### Percentages Still Using Mostly Manual Methods for Key Activities

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# Driving Greater Adoption of Construction Technology (CONTINUED)

## Organizational Challenges

### Internal Resistance And Lack Of Time/ Skills Are Greatest Challenges

The chart shows the percentage citing each of seven obstacles they face to advancing technology adoption and usage at their company.

- Persistent labor shortages(see Workforce Trends section of this report) likely tie to the resistance from field staff and the concern about training time.
- That factor may also drive the lack of time available to evaluate technology options and could also relate to the skills gap in implementing and managing technology.
- Only 20% or fewer cite a lack of management support, a belief that current methods are better or significant difficulty using technology.

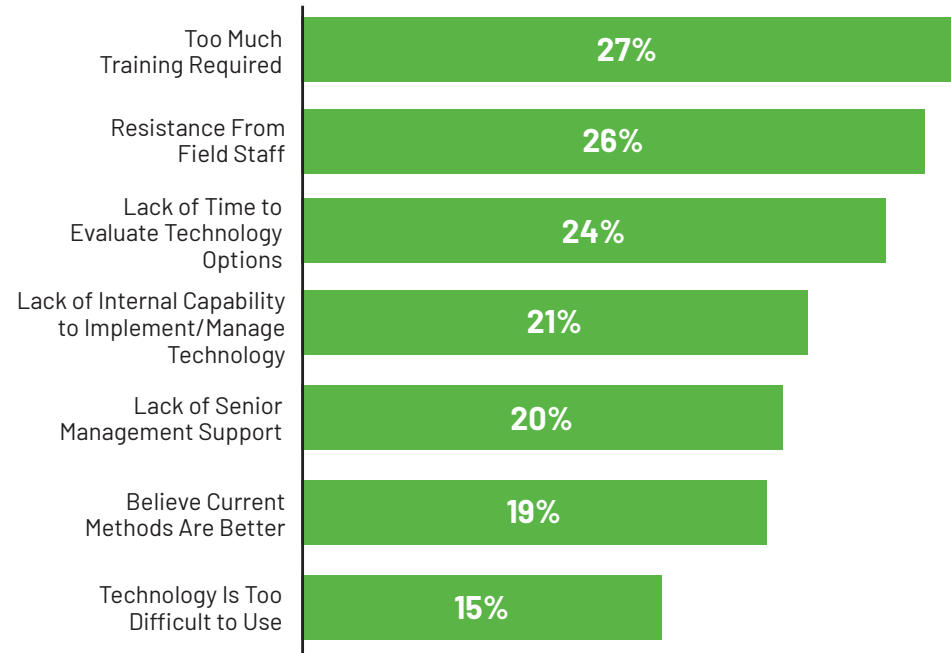
### Success Breeds Success

Best practices for technology implementation include:

- Identifying needs before evaluating options.
- A phased roll-out plan that allows for incremental course corrections.
- A structured process for engaging key stakeholders in all processes.
- Metrics to determine success against the identified needs.
- Celebrating successes, acknowledging shortfalls and openly communicating about progress towards mutually understood goals.

### Top Organizational Challenges to Adopting and Implementing Construction Technology at Specialty Contracting Companies

Dodge Data & Analytics, 2022



# Procore Perspective

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Thank you to the many individuals that took time to provide us with a deeper understanding of the challenges specialty contractors face. Over our 20 year history we have seen the industry change in incredible ways, and this report has clearly shown us that there is still much to be done to provide specialty contractors with the tools they need to face the challenges and do their best work.

As a leader of our specialty contractor division, I partner very closely with our customers and know how hard they work to ensure their teams are productive, perform at high levels, and have profitable projects. I have seen the struggles project teams and leaders have with gaining visibility into their individual projects and across the company, and have witnessed firsthand the positive impact that construction technology has had on their business. Our industry has been undergoing a digital transformation and this research has proven that the journey is not over yet.

Two of the stats that stood out to me were, “39% of specialty contractors report that they are still primarily using spreadsheets, whiteboards, [and] paper-based processes” and “33% of their current staff are likely to retire in the next five years”. The labor shortage is the biggest challenge that specialty contractors are facing and the most important problem that I am dedicated to helping to solve. With so much of the workforce leaving, being more efficient and productive will be crucial which is why earlier this year, we launched a new category of solutions called Workforce Management. Our goal is to provide specialty contractors with access to software that provides real-time insights that improve schedule predictability, field productivity, and profits so you can do more tomorrow with the same resources you have today.

As our CEO Tooey Courtemanche mentioned in the introduction, our vision at Procore is to improve the lives of everyone in construction. In addition to developing world class construction technology, we strive to provide resources such as this report. We are focused on helping contractors gain insight, prepared to solve real world problems, grow their business, and create healthy working environments for their teams.

We are grateful that Dodge Data and Analytics partnered with us on this incredible research and we hope all who read it will learn and grow from its insights. I am looking forward to diving deeper into the data and identifying ways we can better serve the specialty contractor community.



**Will Lehmann**

Head of Product for Specialty Contractors  
Procore Technologies

# Contacts & Resources

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## Additional Resources

# PROCORE

### About Procore Technologies Inc.:

Procore helps firms drastically increase project efficiency and accountability by streamlining and mobilizing project communications and documentation. This real time data and accessibility minimizes costly risks and delays—ultimately boosting profits.

Using our award-winning suite of project management tools, over a million registered Procore users across the globe manage all types of construction projects including industrial plants, office buildings, apartment complexes, university facilities, retail centers, and more.

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