



Q2
2019

USG CORPORATION + U.S. CHAMBER OF COMMERCE

Commercial Construction Index

POWERED BY
DODGE DATA & ANALYTICS



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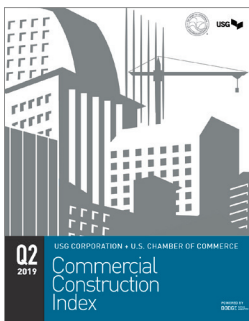
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The USG Corporation + U.S. Chamber of Commerce Commercial Construction Index (CCI) is a quarterly economic index designed to gauge the outlook for and resulting confidence in the commercial construction industry. Recognizing a need to highlight the important contributions of this sector to the nation's economy, USG Corporation and the U.S. Chamber of Commerce partnered to produce this first-of-its-kind index. Each quarter, contractors across the country are surveyed in order to better understand their levels of confidence in the industry and top-of-mind concerns.

OPTIMISM INCREASES AS CONTRACTORS FOCUS ON GREEN BUILDING TECHNOLOGIES.

OVERVIEW

The Commercial Construction Index (CCI) rose two points in Q2 2019 to 74, returning to levels consistent with survey findings from 2017 and 2018.

KEY DRIVERS OF CONFIDENCE

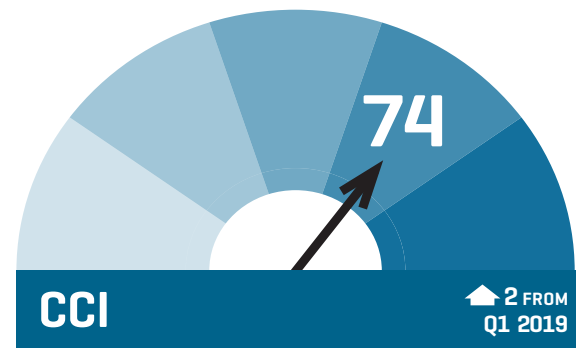
In Q1 2019, all three drivers fell. This quarter, two of the three key drivers of the index—backlog and confidence in new business—told a different story.

- The ratio between the average current and ideal levels of backlog reached 82, the highest since the CCI launched in 2017. This means that contractors are closer to their ideal backlog of work than they have ever been at any point since 2017, when the survey began.
- Confidence in new business returned to levels seen in 2018, revealing contractors' expectations for a steady market for the next year.
- The revenue driver continued to trend downward to a new low of 66.

See Drivers of Confidence on pages 4–6.

QUARTERLY SPOTLIGHT

Contractors' average share of green projects is declining, according to this quarter's data. When compared with previous years' findings, the percentage of respondents performing at least some green work declined from 30% in Q2 2017, to 20% in Q2 2018, and to 18% this quarter. This is particularly surprising since other industry studies do not reveal a similar slowdown in green work. This quarter's study shows that green projects are done



more frequently by large contractors. The findings may suggest the majority of green projects are becoming concentrated among a smaller group of companies.

Even though contractors' share of green projects declined in Q2, findings show builders are still thinking about how to influence sustainability, both during construction and after their job is complete. Contractors report using green practices on a relatively high percentage of projects. In addition, more than half of general contractors (GCs) are influenced in their product purchases by green attributes such as energy and water efficiency, a lack of harmful chemicals, increased building resiliency and recycled or renewable materials. *See Quarterly Spotlight on pages 7–11.*

MARKET TRENDS

Market trends for Q2 2019 are consistent with those reported last quarter, with steady concerns about finding skilled workers, moderate concern about the impact of material costs and increased caution about investing in equipment. *See Market Trends on pages 12–17.*

KEY DRIVERS OF CONTRACTOR CONFIDENCE

82

↑ 5 FROM
Q1 2019

BACKLOG

The ratio between the average actual [10.3 months] and stated ideal [12.5 months] backlog is 82, the highest since the CCI launched in Q1 2017.

74

↑ 3 FROM
Q1 2019

NEW BUSINESS

Contractors return to a healthy level of optimism about new business opportunities in the next 12 months after a small drop in Q1 2019.

66

↓ 1 FROM
Q1 2019

REVENUE

While most contractors expect revenue growth, this number continues to shrink, with a six-point drop year-over-year from 72 in Q2 2018.

ADDITIONAL MARKET TRENDS

60%

HIRING

Hiring expectations recovered between Q1 and Q2 2019, with 60% now anticipating employing more people in the next six months, up 5% from Q1 2019. *See page 12 for more details.*

46%

SKILL LEVEL

Some contractors still report strong concerns over worker skill levels, but more respondents seem to be optimistic in Q2 than in the past 12 months. *See page 14 for more details.*

66%

FINANCING

Two-thirds of builders believe owner access to financing will get easier or remain the same in the next six months, similar to previous quarters. *See page 15 for more details.*

48%

TOOLS & EQUIPMENT

The percentage of contractors who expect to spend more on tools and equipment remains under 50%, similar to the last three quarters. *See page 16 for more details.*

Backlog estimates bounce back strongly in Q2 2019.

BACKLOG INCREASES REBOUND

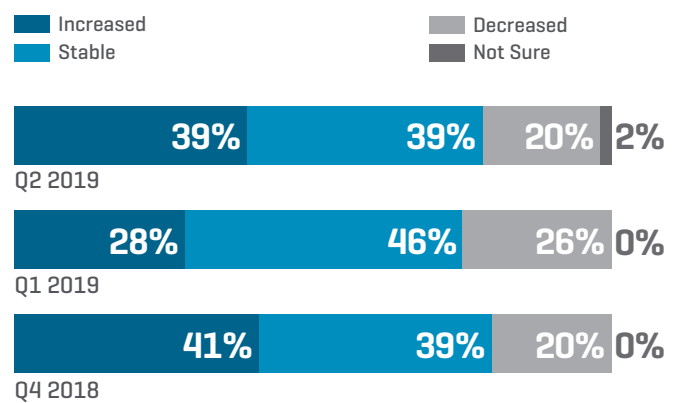
The ratio of current versus ideal backlog hit an all-time high [82%] this quarter. Meanwhile, actual backlog change returns to levels last seen in late 2018 — 39% of contractors increased backlogs in the last three months. This is a dramatic increase over Q1 2019, but consistent with the findings in Q3 and Q4 2018. While backlog is growing, fewer contractors predict higher revenues [see page 6]. With 61% of contractors reporting that skilled labor shortages are creating challenges in meeting schedule requirements, it is possible that backlog is growing as contractors struggle to complete work on time.

AVERAGE BACKLOG STRENGTHENS

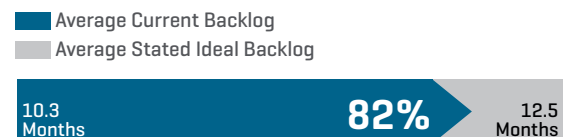
The average level of backlog for Q2 is 10.3 months, which is slightly higher than Q1, but is similar to the Q4 2018 level. The ratio of current versus ideal backlog also recovered from the sharp drop in Q1 [up 5 points].

MODERATE BACKLOGS INCREASE More contractors report backlogs of six to 12 months this quarter, growing 16 points to 39%. Correspondingly, fewer contractors had backlogs in the highest and lowest categories quarter-over-quarter.

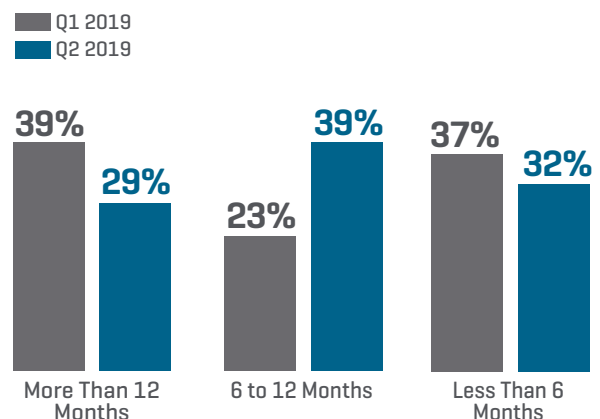
Change in Backlog in the Last Three Months



Current vs. Ideal Backlog



Amount of Backlog Reported



Contractor confidence rebounds after a first quarter decline.

CONTRACTOR CONFIDENCE RESTORED IN 12-MONTH OUTLOOK

More than half of contractors are highly confident about the ability of the market to provide sufficient new business opportunities in the next 12 months, a return to the levels seen throughout 2018. This lends weight to the idea that the drop seen in Q1 2019 could have been related to the federal government shutdown.

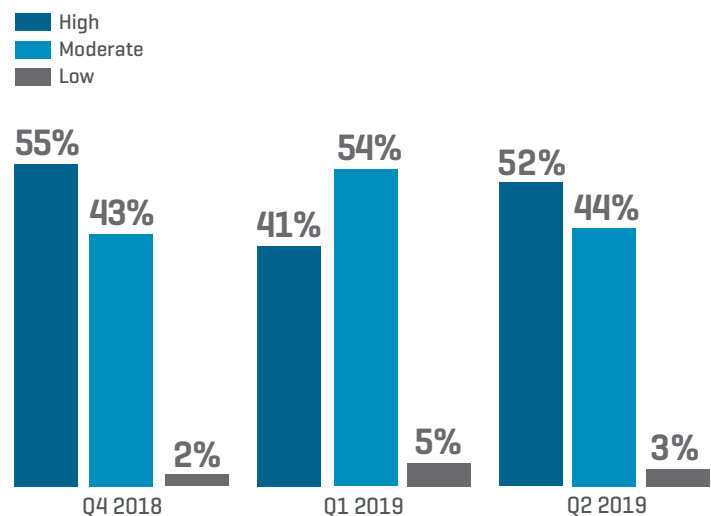
VARIANCE BY FIRM SIZE Nearly three-quarters [71%] of large contractors [revenues of \$100 million or more] are highly confident in the 12-month outlook, compared with 42% of small companies [less than \$10 million in revenue].

TWO-YEAR OUTLOOK IMPROVES

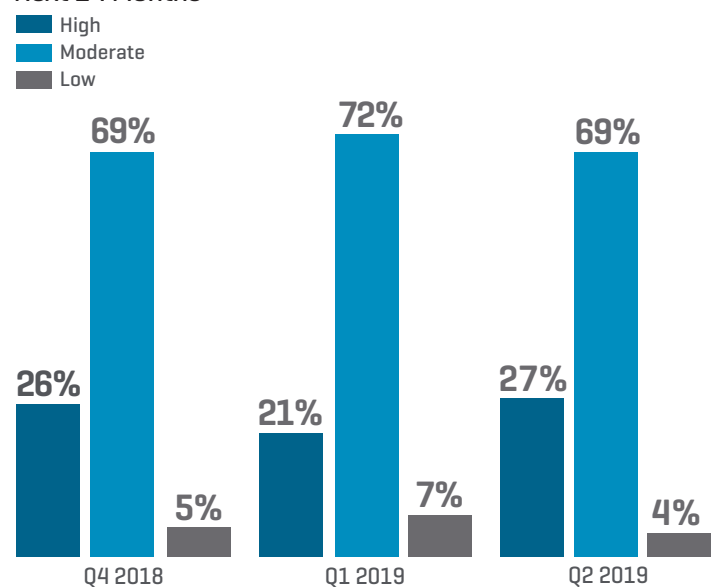
For the first time since Q3 2018, the percentage of contractors with a high level of confidence in business opportunities in the next 24 months has increased, from 21% to 27% quarter-over-quarter. However, as with previous quarters, the vast majority of contractors have a moderate level of confidence in the long-range outlook.

Degree of Confidence Among Contractors in Sufficient New Business Opportunities

Next 12 Months



Next 24 Months



Note: Percentages are based on ratings using a 10-point scale, where the three points at the bottom [1-3] indicate a low level of confidence and the three points at the top [8-10] indicate a high level of confidence.

Contractors' revenue expectations to decline, but profit margin outlook remains steady.

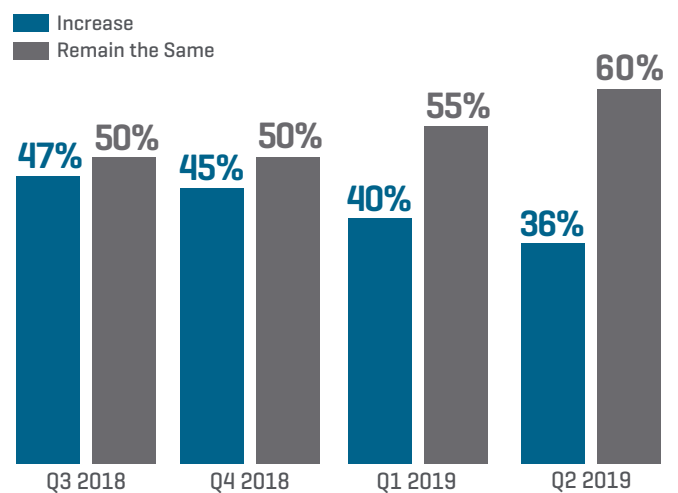
REVENUE EXPECTATIONS

Fewer contractors believe their revenue will increase in the next 12 months. In Q2, 60% of contractors expect revenue to remain the same, and only 36% expect an increase. Almost no contractors [3%] currently expect their revenues to decrease.

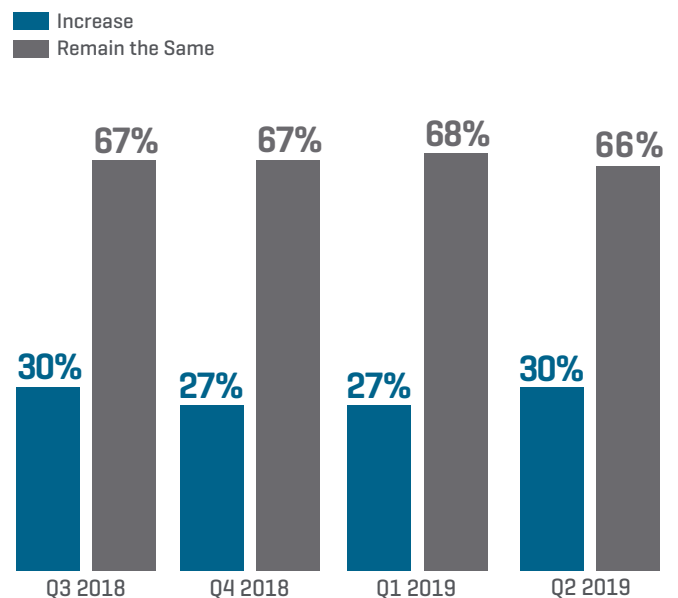
PROFIT EXPECTATIONS STEADY

Profit expectations continue to remain consistent with those reported in the last year. Two-thirds of respondents expect their margins to remain the same and 30% anticipate an increase.

Expected Revenue Changes in the Next 12 Months



Expected Profit Changes in the Next 12 Months



VOICE OF THE CONTRACTOR

[The greatest opportunity for my business in the next 12 months is to] increase profit margin as competition is reduced because of increased workloads.

—CCI Survey Respondent

Note: Percentages for revenue and profit margins are based on ratings using a 10-point scale, where the three points at the bottom [1-3] indicate a decrease, three points in the middle indicate it has stayed about the same and four points at the top [7-10] indicate an increase.

Large contractors are more likely to believe that sustainability provides a competitive advantage.

FEWER CONTRACTORS SEE SUSTAINABILITY AS AN ADVANTAGE

Overall, fewer contractors [35%] in Q2 2019 believe that sustainability offers a competitive advantage than in previous studies. There are also fewer contractors [29%] proposing green/sustainable products and solutions for their customers than in the 2017 and 2018 reports.

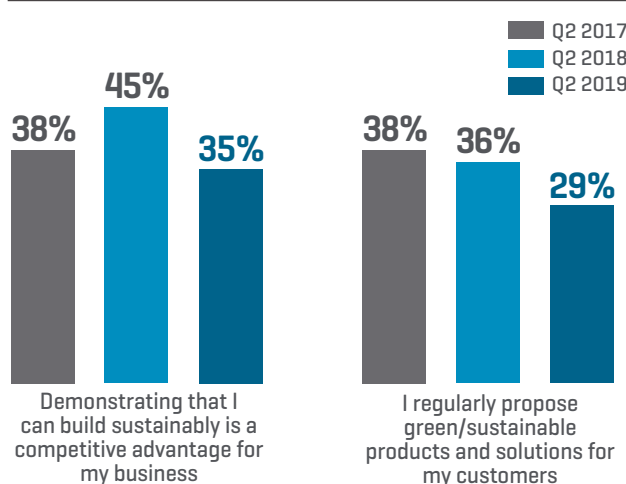
No other recent studies report that green construction has declined. It is possible that the tight contractor market has led fewer contractors to feel the need to differentiate themselves based on green specialties. Also, green products and solutions may have become more mainstream, leading fewer contractors to specifically recommend them to clients.

VARIANCE BY FIRM SIZE AND REGION

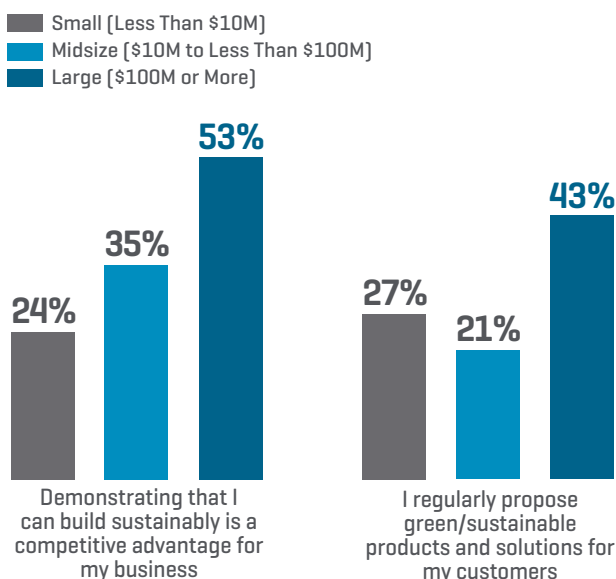
A majority of respondents [53%] from large companies see sustainability as a competitive advantage, and 43% regularly propose green solutions.

Significantly more contractors in the West [44%] regularly propose green solutions than those in the Midwest [19%].

Percentage of Contractors Who Agree With Sustainability Statements



Percentage of Contractors Who Agree With Sustainability Statements [By Size of Annual Revenue for the Company]



Engagement with green building has dropped since 2017, but remains close to 2018 levels.

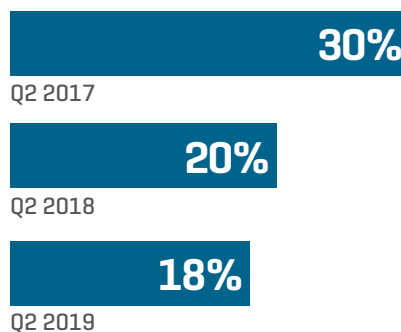
SHARE OF GREEN PROJECTS DECLINES SLIGHTLY

More than 80% of contractors report working on at least some share of green projects, but that share is smaller than in 2017. The average share of green projects as a percentage of overall work has dropped from 30% in Q2 2017 to 18% in Q2 2019.

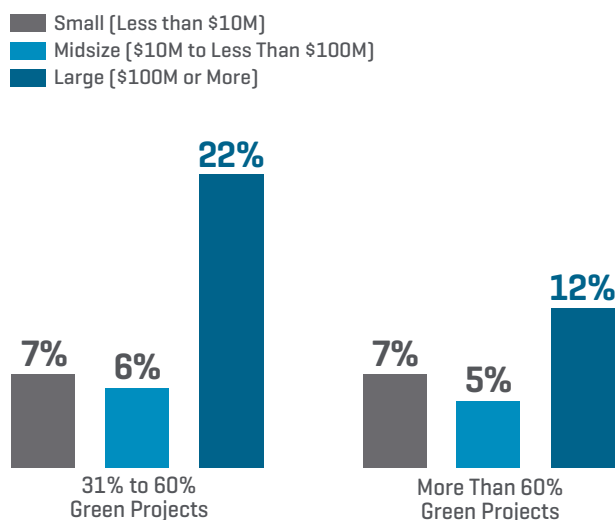
With no other studies indicating a decline in green activity overall in the U.S., this may suggest that more green work is going to a smaller number of specialized contractors. It may also reflect that green building has become a more standard approach, in which case contractors may be less inclined to identify projects with common energy-saving, recycling, water-saving and other green practices as “green.”

VARIANCE BY FIRM SIZE Large contractors are far more likely to do a high percentage of green projects than smaller companies. More than one-third (34%) of large contractors report that 30% or more of their projects are green, over double the percentage reported by smaller firms.

Green Projects as Percentage of Overall Work by Year



Contractors Building More Than 30% of Their Projects Green



Green practices are becoming more mainstream for general contractors.

MOST COMMON GREEN PRACTICES USED BY GENERAL CONTRACTORS

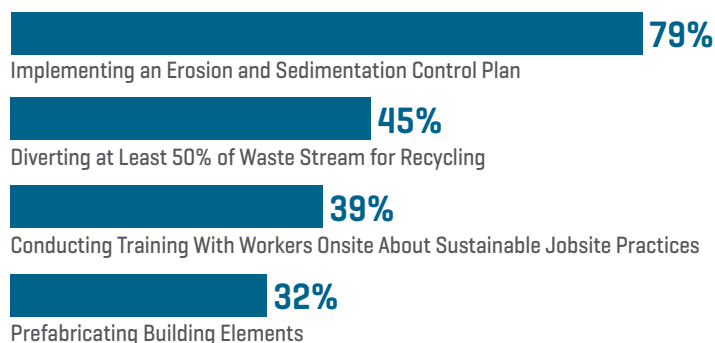
GCs were asked about four green practices that specifically fall under their purview on a project. Implementing an erosion and sedimentation control plan is the most common practice, used on an average of 79% of projects. Recycling is used on nearly half of projects [45%], with GCs reporting that they divert at least half of their waste stream for recycling. The other practices, while less common, are used on about one-third of projects, including training workers on sustainable practices and using prefabrication.

MOST CONTRACTORS MUST MEET GREEN STANDARDS

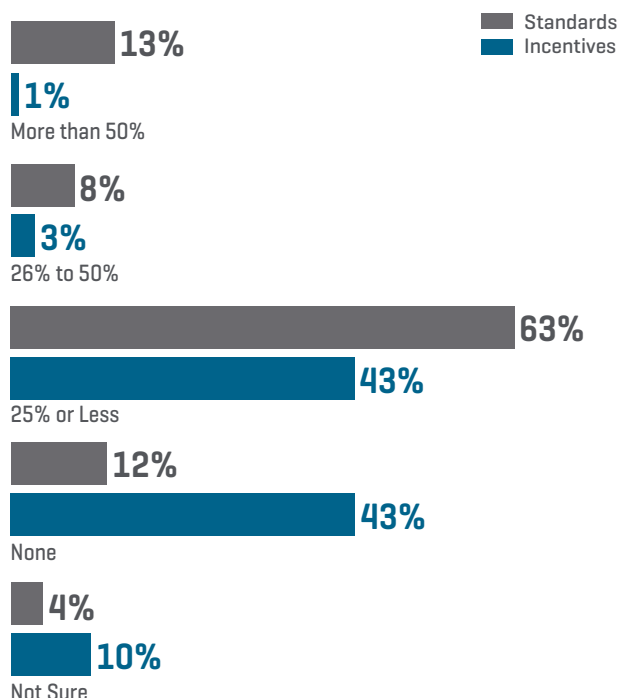
Most contractors [84%] report having to meet green standards like LEED certification on at least some projects, but fewer than half [47%] report taking advantage of green incentives [tax breaks, loans, etc.]. Green standards are not the norm for most projects, with the highest percentage [63%] reporting they have to meet standards on 25% or less of their projects.

VARIANCE BY FIRM SIZE Large and midsize companies are more likely to meet green building standards or use green incentives than small companies. This may be a product of smaller firms' lower level of engagement with green projects in general, or it could be a cause of that lower engagement due to a lack of familiarity with standards and incentives.

Average Percentage of Projects on Which General Contractors Use Green Practices



Percentage of Projects on Which Contractors Have to Meet Green Standards or Use Green Incentives



Eighty percent of general contractors report energy efficiency drives purchasing decisions.

ENERGY EFFICIENCY IS THE MOST DESIRABLE ATTRIBUTE FOR GENERAL CONTRACTORS

GCs are looking to buy energy and water efficient products without harmful chemicals, according to the latest data. Most [80%] respondents report that energy efficiency has a positive influence on their purchasing decisions, while nearly two-thirds give consideration to whether the products contain harmful chemicals, are water efficient or increase building resiliency. More than half report a positive influence from whether the products/equipment are made from recycled or renewable materials.

VARIANCE BY FIRM SIZE AND REGION

Water efficiency [73%] and increased building resiliency [69%] are important attributes of products/equipment purchased by large contractors [GCs and specialty trade contractors] with revenues of \$100 million or more.

Water efficiency is more influential to contractors in the West [60%] than to those in the Midwest [17%].

Five Green Attributes With Greatest Influence on Product Purchasing Decisions Made by General Contractors



80% Energy Efficient



65% Does Not Contain Harmful Chemicals



64% Water Efficient



61% Increased Building Resiliency



52% Made From Recycled or Renewable Materials

General contractors say cost of sustainable products is the number one reason they do not buy green products.

WHY GENERAL CONTRACTORS DO NOT SELECT GREEN PRODUCTS

GCs were asked to rank the top two reasons for *not* selecting green products. The four reasons selected most frequently by GCs are included in the chart at right.

- 66% of GCs rank cost as the top reason not to go with a green product. Clearly, there is a perception that green products cost more.
- 36% of GCs rank better performance by the non-green product than the green product as a reason for selecting a non-green product.
- Only 23% of GCs won't select a green product just because one isn't specified.
- Only 19% regard lack of familiarity with a green specified product as a top obstacle to its selection.

These findings suggest that as long as green products are price-competitive and function well, contractors will use them.

VARIANCE BY REGION Nearly three-quarters [74%] of contractors from the South cite cost as a top reason not to choose a green product, compared with only 46% of those in the Northeast.

Top Four Reasons General Contractors Do Not Select Green Products



66% Product Cost



36% Selected Product Functions Better Than Green Alternatives



23% Green Product Not Specified



19% Familiarity With Specified Product

More contractors expect to increase hiring in the next six months, while finding skilled workers is a persistent challenge.

CONTRACTORS EXPECT TO EMPLOY MORE WORKERS

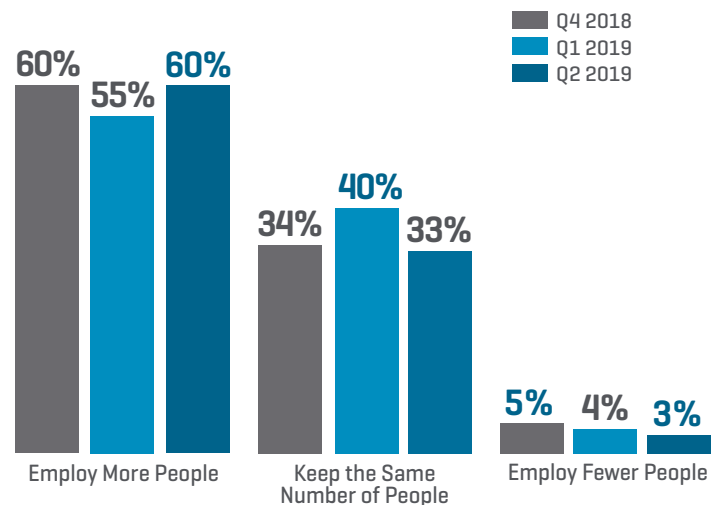
Well over half (60%) of contractors expect to employ more people over the next six months, a return to Q4 2018 expectations after a drop in Q1 2019. Robust levels of backlog and high expectations that the market will provide more work contribute to this finding.

FINDING SKILLED WORKERS REMAINS A CHALLENGE

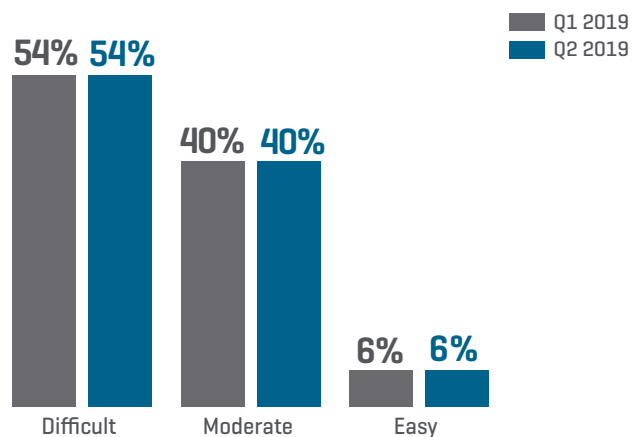
The challenge of finding skilled workers has remained consistent since the launch of the CCI in 2017. This quarter, the findings directly match those of Q1 2019, with 94% of contractors reporting moderate to high levels of difficulty finding skilled workers.

VARIANCE BY FIRM TYPE A far greater percentage (63%) of specialty trade contractors report a high level of difficulty in finding skilled workers, compared with GCs, who are more evenly split between high (47%) and moderate (43%) levels of difficulty.

Contractor Hiring Plans Over the Next Six Months



Difficulty Finding Skilled Workers



Note: Percentages for difficulty levels are based on ratings using a 10-point scale, where the three points at the bottom (1-3) indicate a high level of difficulty and the three points at the top (8-10) indicate a low level of difficulty.

Almost half of contractors report turning down work due to skilled worker shortage.

MORE CONTRACTORS TURN DOWN WORK DUE TO SKILLED LABOR SHORTAGE

Continuing a persistent trend, contractors report that skilled worker shortages force them to ask their workforce to do more, miss deadlines, put in higher bids for projects and turn down work opportunities. This quarter, more contractors [47%] are turning down work opportunities. Even so, fewer report that they are challenged to meet schedule requirements [61%] or are asking workers to do more [73%] than in the previous three quarters. This may be a reflection of contractors adjusting their practices to accommodate this persistent issue.

CONCERNS OVER COST OF LABOR PERSIST

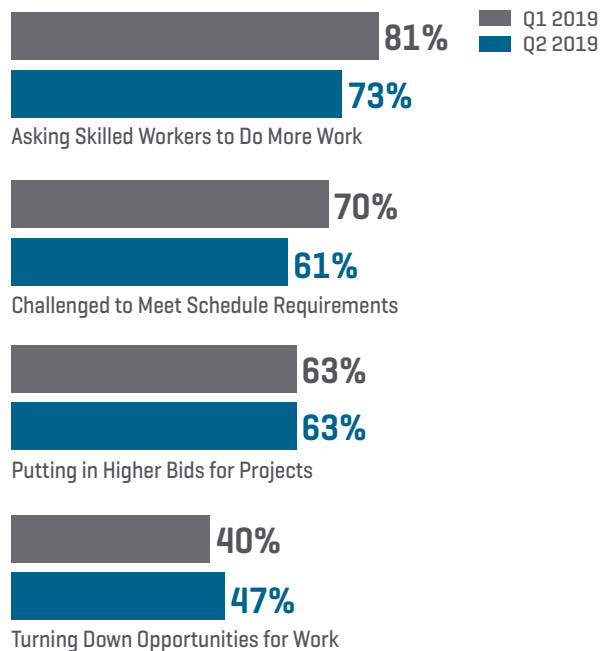
Most contractors [85%] are concerned about the cost of skilled labor, a finding that has remained consistent since the start of the index in 2017.

Nearly three-quarters [72%] of contractors also expect the cost of skilled workers to increase in the next 12 months, a factor they should consider as they submit bids for upcoming work.

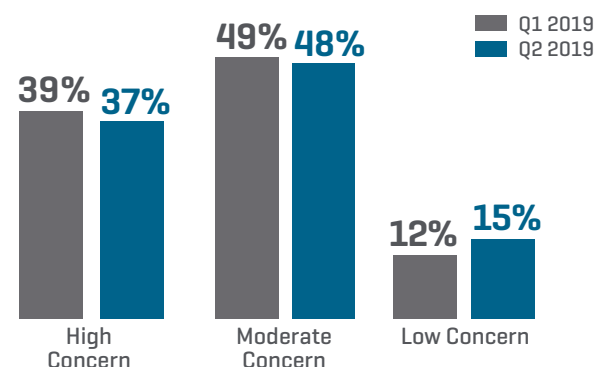
VARIANCE BY REGION Severe concern about the cost of skilled labor is most prevalent in the West [51%] and South [45%], and least reported in the Northeast [17%].

Note: Percentages for degree of concern contractors have about the cost of skilled labor are based on ratings using a 10-point scale, where the three points at the bottom [1-3] indicate a high level of concern and the three points at the top [8-10] indicate a low level of concern.

Consequences of Skilled Labor Shortages



Degree of Contractor Concern About Cost of Skilled Labor



Fewer contractors express high concern about worker skill levels compared with the first quarter of 2019.

CONTRACTORS WORRY LESS ABOUT WORKERS' SKILL LEVELS

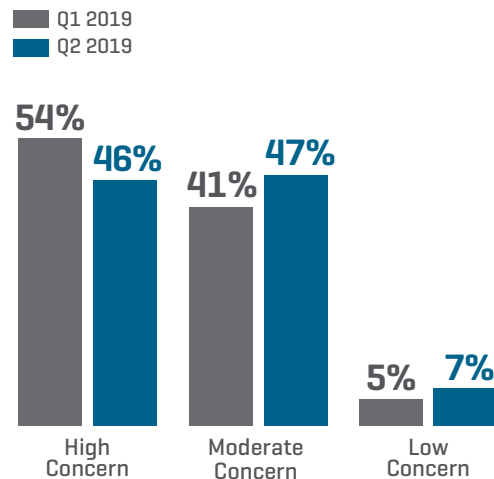
Contractors are nearly evenly split between those expressing a high [46%] and moderate [47%] level of concern about workers possessing adequate skills. This is a notable shift from the last three quarters, when high concerns were at least 10 percentage points more than moderate ones. This change bears watching, to see if concerns about this issue are becoming more moderate.

CHANGES IN THE CHALLENGE OF FINDING WORKERS WITH SUFFICIENT SKILLS

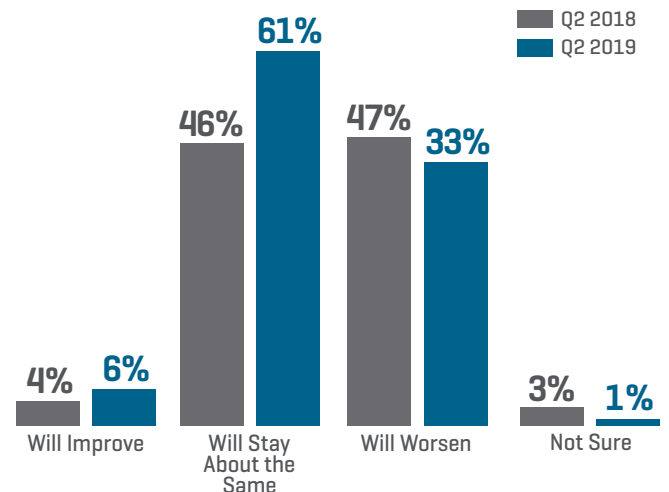
Fewer contractors [33%] expect the search for skilled labor will worsen over the next six months, and more [61%] expect finding workers with sufficient skills will remain the same. This may suggest that contractors believe that this issue has bottomed out and bears watching over the next few quarters.

Note: Percentages for degree of contractor concern about workers having adequate skill levels are based on ratings using a 10-point scale, where the three points at the bottom [1-3] indicate a high level of concern and the three points at the top [8-10] indicate a low level of concern.

Degree of Contractor Concern About Adequate Worker Skill Levels



Expected Problems Finding Skilled Workers in the Next Six Months [Among Those Concerned About Skill Level]



Access to working capital and project financing remain widely available, largely consistent with previous quarters.

CONTRACTORS SEE STEADY ACCESS TO CAPITAL

The majority of contractors believe access to financing will remain the same or get easier in the next six months. These findings are consistent with those in the past few quarters, and do not have any variances by firm type, size or region.

PROJECT FINANCING CONSISTENT

Two-thirds of contractors [66%] believe that owner access to financing will get easier or remain the same over the next six months. These findings are consistent with those from Q1 2019, and again do not have significant variances by firm type, size or region.

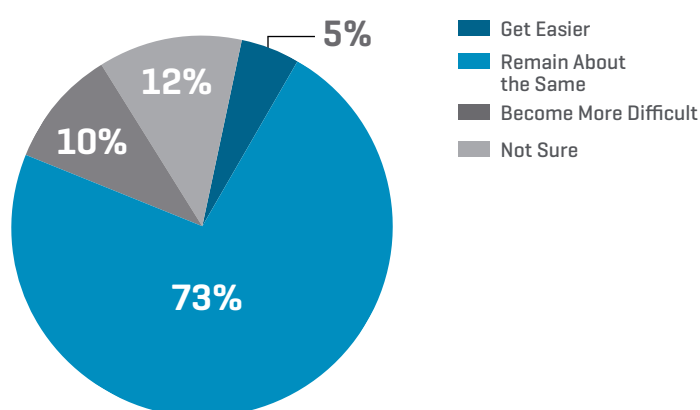


VOICE OF THE CONTRACTOR

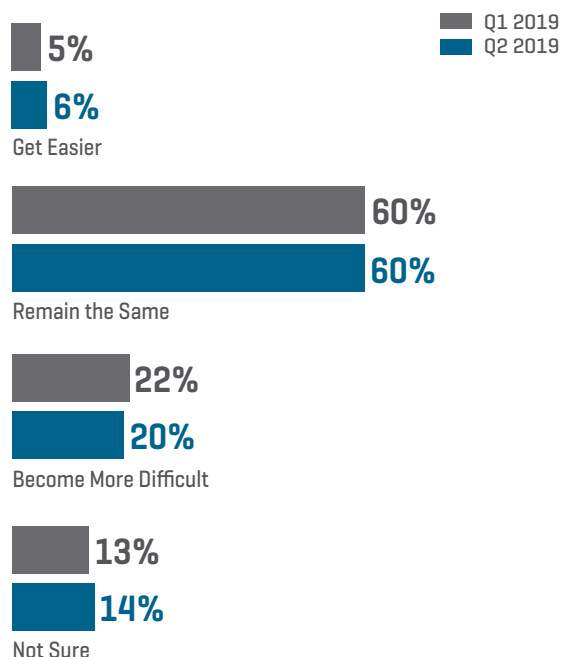
[The greatest opportunity for my business in the next 12 months is that] private work has increased significantly: 5 years ago, there was none.

—CCI Survey Respondent

Expected Change in Access to Working Capital Financing by Contractors in the Next Six Months



Expected Change in Building Owner Access to Financing in the Next Six Months



Spending on tools and equipment remains steady, with fewer contractors expecting material cost fluctuations to impact their businesses.

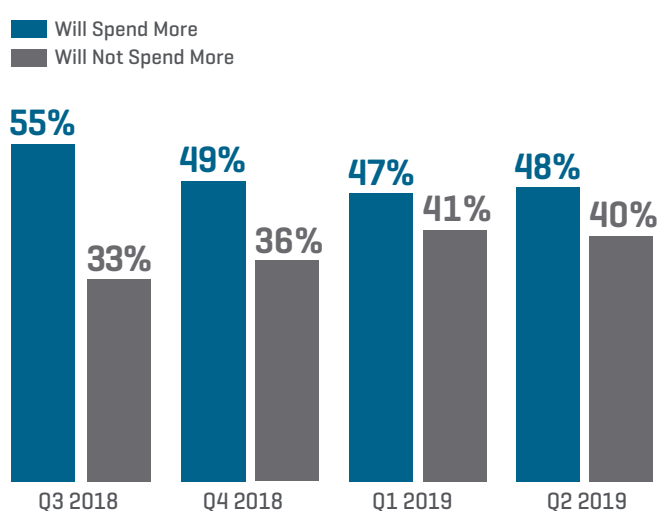
SPENDING ON TOOLS AND EQUIPMENT REMAINS CONSISTENT WITH Q1

Spending on tools and equipment remains at about the same level that it was in Q1 2019, although it is notably below spending reported before Q4 2018. This suggests sustained caution on the part of contractors.

CONCERNS OVER MATERIAL COST FLUCTUATIONS REMAIN STEADY

Most contractors expect a moderate to high impact on their projects from fluctuations in costs for materials, consistent with the Q2 findings.

Contractors' Expected Spending on Tools and Equipment

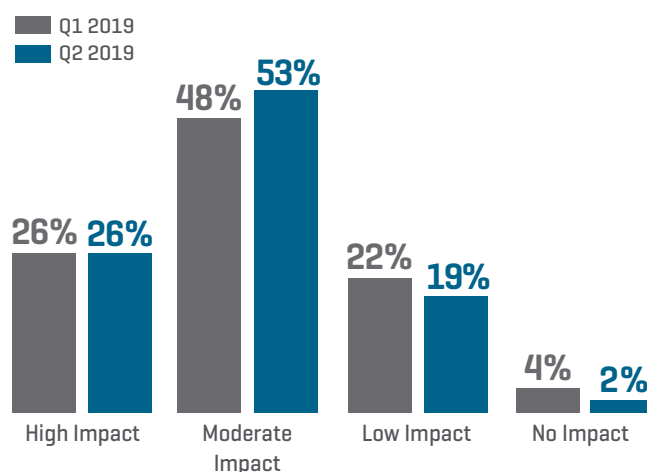


VOICE OF THE CONTRACTOR

[My single most important concern about my business in the next 12 months is] material costs are quoted for 90 days and the job bids go for a year.

—CCI Survey Respondent

Impact of Cost Fluctuations on Construction Projects



Note: Percentages for Expected Material Shortages' Impact on Contractors are based on ratings using a 10-point scale, where the three points at the bottom [1-3] indicate a high impact and the three points at the top [8-10] indicate a low impact.

Concerns over material shortages and tariffs moderate, but remain a serious issue for contractors.

MORE CONTRACTORS REPORT MODERATE IMPACTS FROM MATERIAL SHORTAGES

Since Q4 2018, there has been a shift away from contractors reporting high impacts on their businesses from material shortages to those reporting moderate impacts. The number who report at least a moderate impact (moderate and high combined) has remained above 80% across the last three quarters.

CONCERNS OVER TARIFFS AND TRADE EASE

Fewer contractors expect a high level of impact from steel and aluminum tariffs or from new tariffs than did in Q1 2019. However, several contractors mention tariffs as the single most important concern they face in the next 12 months.

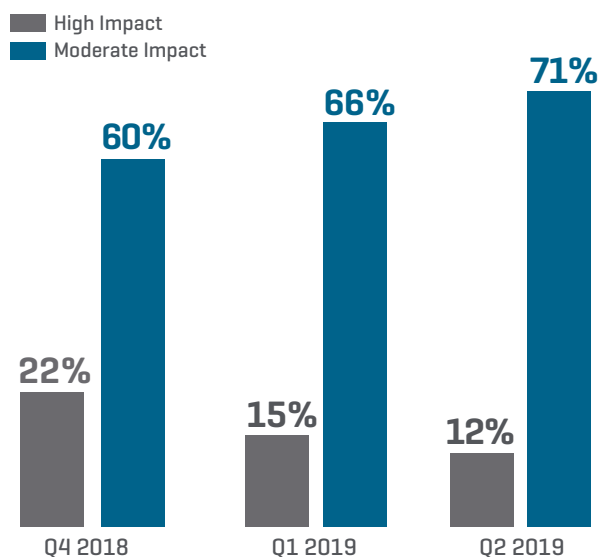


VOICE OF THE CONTRACTOR

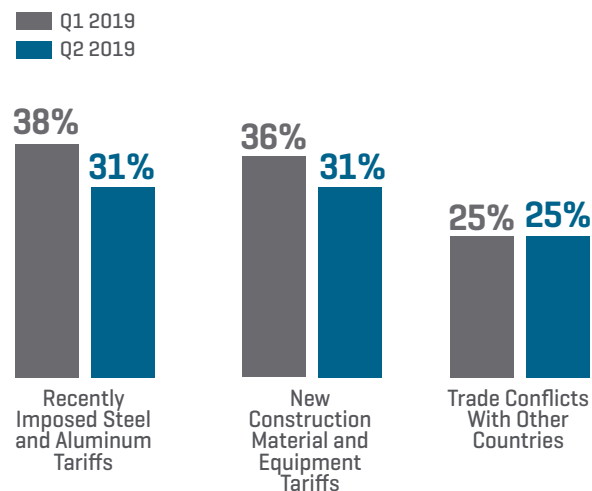
[My single most important concern about my business in the next 12 months is] local impacts or effects from the global economy or tariffs.

—CCI Survey Respondent

Contractors Who Expect Shortages to Have a High/Moderate Impact on Their Businesses



Contractors Expecting a High Degree of Business Impact From Each Factor in the Next Three Years



5 METHODOLOGY

Dodge Data & Analytics (DD&A) in partnership with USG Corporation and the U.S. Chamber of Commerce conducts the Commercial Construction Index survey on a quarterly basis with the DD&A Contractor Panel. The majority of data represented in this report is from the Q2 2019 survey conducted online from April 1 to 9, 2019.

DD&A CONTRACTOR PANEL

In order to enable reliable market research in the construction industry, DD&A maintains a panel of more than 2,700 decision makers that includes general contractors, construction managers, design-builders and trade contractors. This panel allows DD&A to provide findings that are representative of the entire U.S. construction industry by geography, and by size and type of company.

SECOND QUARTER SURVEY DEMOGRAPHICS

204 contractors who do projects in the commercial and institutional sectors in the U.S. (including multifamily residential) responded to the survey.

TYPE OF COMPANY More than half (56%) of respondents are prime contractors (including general contractors, construction managers, design-builders and remodelers), and 44% are specialty trade contractors.

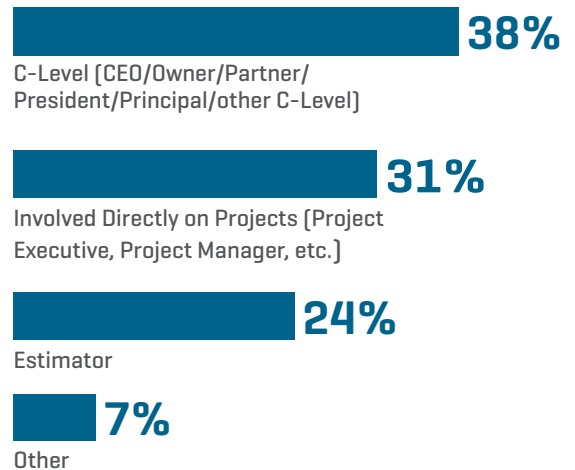
JOB FUNCTION Most are in leadership roles or engaged in projects.

SIZE OF COMPANY The percentage of small and midsize contractors is higher than that of large companies.

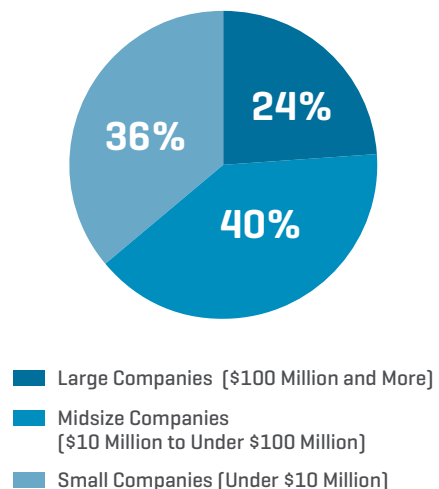
LOCATION 17% of the respondents are located in the Northeast, 32% in the South, 29% in the Midwest and 22% in the West.

The analysis includes comparisons to previous surveys conducted online with the DD&A Contractor panel since January 2017.

Job Functions of Respondents



Size of Company [by Annual Revenue]



COMMERCIAL CONSTRUCTION INDEX

The Commercial Construction Index is an indicator of the health of the contractor segment of the U.S. building industry. It is comprised of three specific components reflecting aspects of the commercial contractors' situation.

THE FIRST COMPONENT calculates each respondent's ratio of current backlog to ideal backlog. It takes the mean of the ratio across all survey respondents.

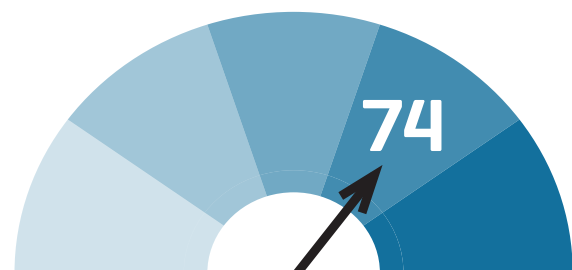
THE SECOND COMPONENT is the mean of all responses, on a scale of 1-10, to the question "How confident are you that the U.S. market will provide your company with sufficient new business opportunities?"

THE THIRD COMPONENT compiles contractors' ranges of expected revenue growth/decline and transposes those to a 10-point scale, then takes the mean of responses on that scale.

Each measure is drawn from the quarterly survey responses, and they are weighted evenly by one-third (33.3%) to create the composite index.

DEFINING COMMERCIAL CONSTRUCTION

For purposes of the CCI we define commercial construction as the following types of buildings: Office, Retail, Hospitality, Education, Healthcare, Multifamily Residential (mid- and high-rise), Government, Warehouses, Airport Terminals and other Transportation Buildings.



The Commercial Construction Index is 74 for the second quarter of 2019.



USG Corporation is an industry-leading manufacturer of building products and innovative solutions. Headquartered in Chicago, USG serves construction markets around the world through its Gypsum, Performance Materials, Ceilings and USG Boral Divisions. Its wall, ceiling, flooring, sheathing and roofing products provide the solutions that enable customers to build the outstanding spaces where people live, work and play. Its USG Boral Building Products joint venture is a leading plasterboard and ceilings producer across Asia, Australasia and the Middle East. For additional information, visit www.usg.com.

The U.S. Chamber of Commerce is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors and regions, as well as state and local chambers and industry associations. Its International Affairs division includes more than 70 regional and policy experts and 25 country- and region-specific business councils and initiatives. The U.S. Chamber also works closely with 117 American Chambers of Commerce abroad.

Dodge Data & Analytics is North America's leading provider of analytics and software-based workflow integration solutions for the construction industry. Building product manufacturers, architects, engineers, contractors and service providers leverage Dodge to identify and pursue unseen growth opportunities and execute on those opportunities for enhanced business performance. Whether it's on a local, regional or national level, Dodge makes the hidden obvious, empowering its clients to better understand their markets, uncover key relationships, size growth opportunities and pursue those opportunities with success. The company's construction project information is the most comprehensive and verified in the industry. Dodge is leveraging its 100-year-old legacy of continuous innovation to help the industry meet the building challenges of the future. To learn more, visit www.construction.com.

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