

2023 Construction Industry Forecast





Cautious optimism amid headwinds

As we begin a new year, it's quite clear we are not yet out of the woods in terms of market and industry volatility. While we continue to see supply chain and skilled labor impacts, we now also must manage inflation and the resulting interest rate hikes while looking ahead to a potential recession. We believe that in times such as these, it's more important than ever to survey our industry peers to understand their sentiment amid a multitude of headwinds.

This marked the 47th year of our annual Wells Fargo Construction Industry Forecast, and we are pleased to report that industry executives from 44 states responded to our survey. The primary goal of the survey is to determine the 2023 U.S. National Optimism Quotient (OQ), which is the survey's primary benchmark for measuring the degree of optimism in the nonresidential construction business for the coming year. In addition to determining the OQ, the survey also posed questions about equipment sales and purchase expectations, trends in the rental market, and explored major cost and risk concerns that industry executives are thinking about as they begin to focus on 2023. This year's OQ comes in at 86 indicating cautious optimism.

Industry sentiment has declined amid economic and supply chain concerns, though executives remain cautiously optimistic. Despite economic headwinds as we enter 2023, there is cautious optimism looking ahead fueled by a strong backlog of jobs and orders, infrastructure spending, and anticipated supply chain stability. A shortage of skilled labor and increased labor costs continue to be dominant industry concerns.

As we shift our focus to what may come next, please reference the full report to weigh your future business decisions against what your industry peers have to say. As always, please reach out with any questions you have about the survey. We are glad to share our perspective and interpretation of the results at your convenience.



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A handwritten signature in black ink that reads "Jim Heron".



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Survey method



Overview

The survey results presented in this 2023 Construction Industry Forecast represent the 47th year in which Wells Fargo Equipment Finance and its predecessors have surveyed construction industry executives to gather insight into current business conditions and trends, and to measure their sentiment toward construction activity in the coming year. This year, survey responses came from 320 construction industry executives in 44 states. Note: The margin of error for this survey varies among respondent groups, but does not exceed 15% (95% confidence level).

Respondent classifications

Contractors are companies that execute construction projects. Producers of aggregate materials and other companies that rely on heavy construction equipment also fall into this category. These companies often buy, lease, or rent large construction equipment to complete such projects.

Equipment rental companies acquire equipment to rent out to contractors. These companies are grouped with distributors for purposes of analysis.

Distributors are dealers of construction equipment. These companies most often sell heavy equipment, light equipment, or general construction equipment, and provide a range of products and services to the construction industry. It is very common for distributors to also have rental as part of their business strategy.

Manufacturers create or build the equipment that contractors use.

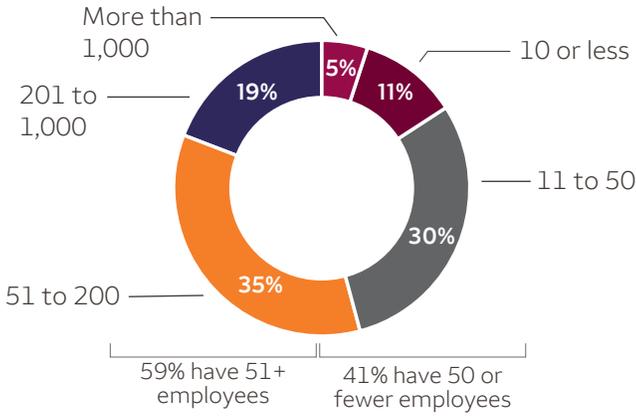
Survey dates

October 11 – November 7, 2022

Composition of survey respondents

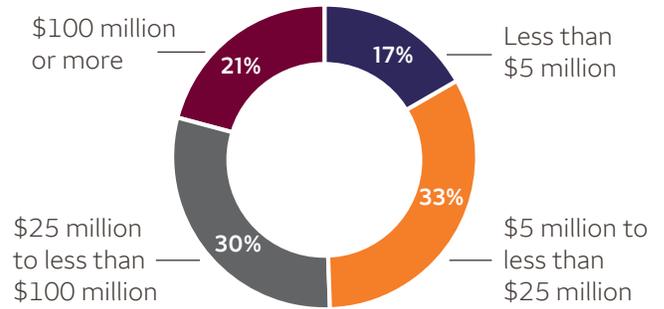
Over half of respondents represent companies with more than 51 employees (59%) and an annual revenue of over \$25 million (51%). Nonresidential building and equipment dealers/rentals are the most common industries among respondents. Respondents are high level executives including primarily owners (33%) or C level executives (22%).

Which of the following categories best describes your company's total number of employees?



Base: Total respondents — 320 for 2023 forecast.

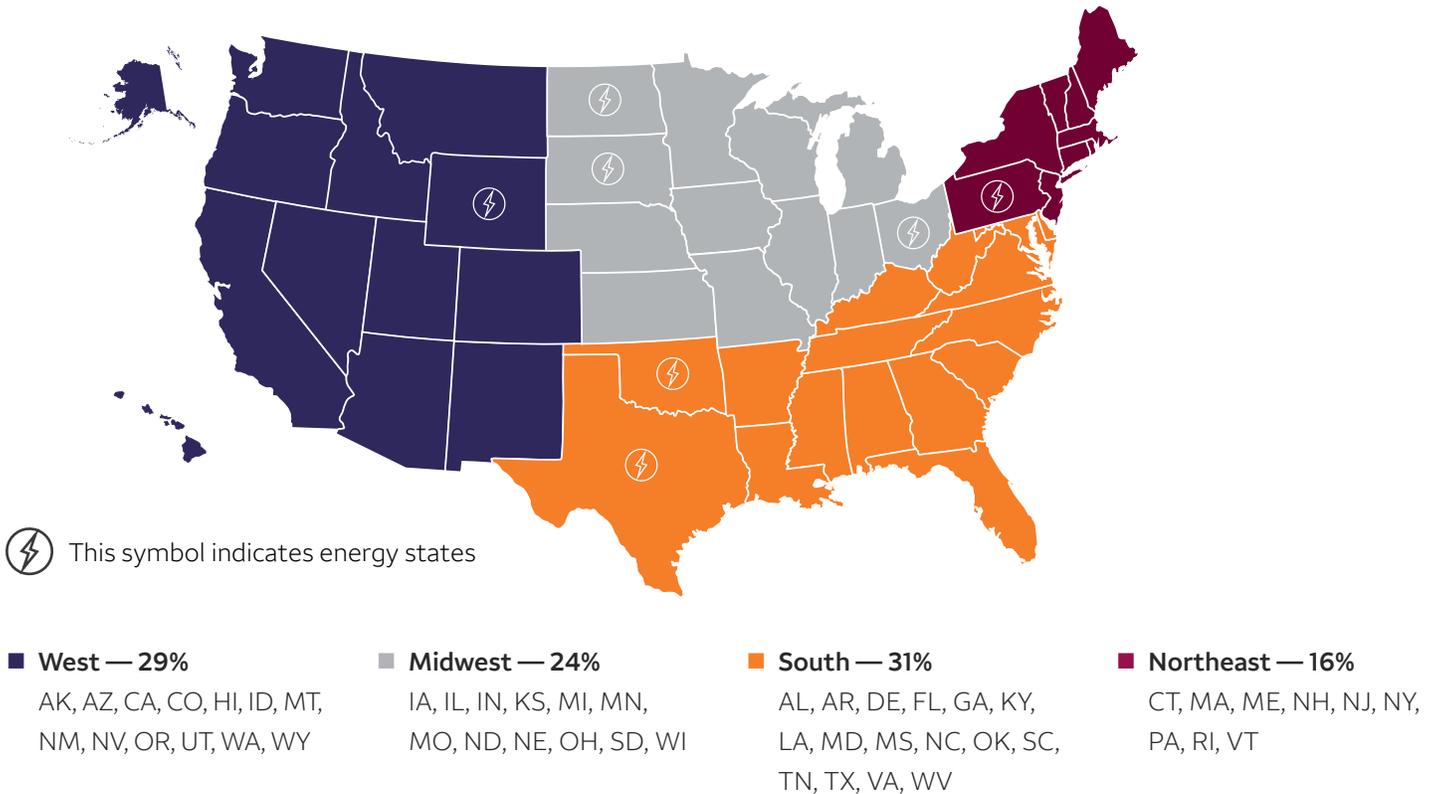
Which of the following categories best describes your company's annual revenue?



Base: Total respondents — 320 for 2023 forecast.

Graphic distribution of survey respondents

Responses were received from 44 states. Delaware, Hawaii, North Dakota, Rhode Island, South Dakota, Vermont and Washington D.C. were not represented in the pool of respondents this year. Note: The following are the proportions of survey responses from energy states: 20% (2023), 21% (2022), 21% (2021), 17% (2020), 17% (2019), 23% (2018), 24% (2017), 17% (2016) and 22% (2015).

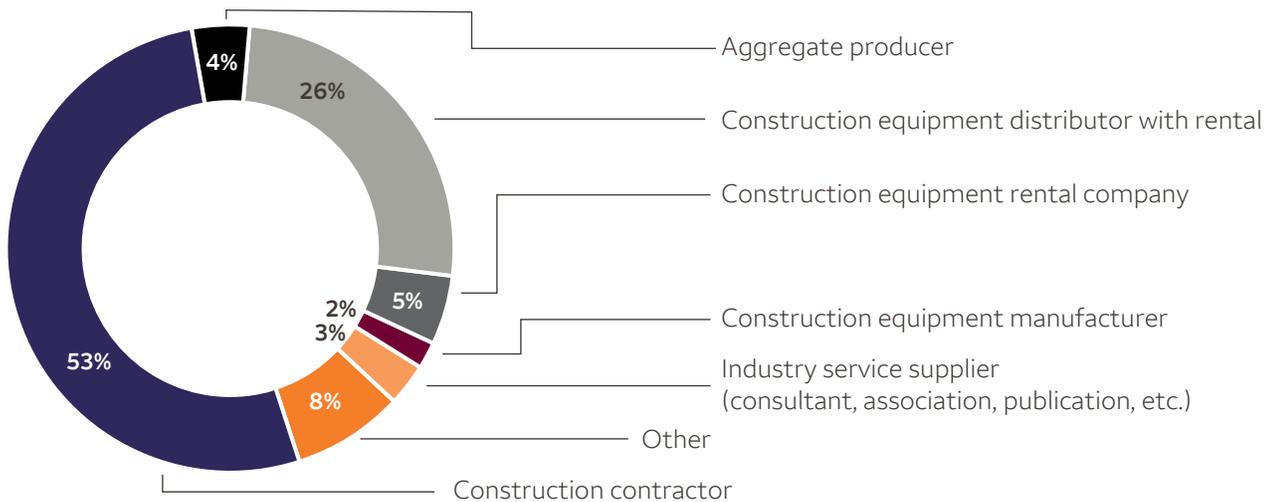


Base: Total respondents — 320 for 2023 forecast.

In which of the following industries do you do the most work?

Category	
Nonresidential building	19%
Equipment dealers/rentals	17%
Site preparation/excavation	15%
Residential building	9%
Concrete and asphalt	9%
Heavy highway	8%
Utility contracting	8%
Aggregate production	4%
Oil & gas	2%
Renewable energy	0%
Other	8%

What best describes your company's primary function in the construction industry?



Base: Total respondents — 320 for 2023 forecast.
 Percentages may not add up to 100% due to rounding.

The 2023 Optimism Quotient

2023 — Cautious optimism in the face of uncertainty

The Optimism Quotient (OQ) — this survey's primary benchmark for measuring contractor and equipment distributor sentiment on local nonresidential construction activity — is 86 for 2023. In the face of economic uncertainty, executives maintain cautious optimism as they look ahead to 2023 and beyond.

This year's score is guarded, but optimistic for local nonresidential construction. The tempered expectations this year should be understood within the greater economic context of inflation, looming concerns over a recession, and ongoing supply chain disruptions.

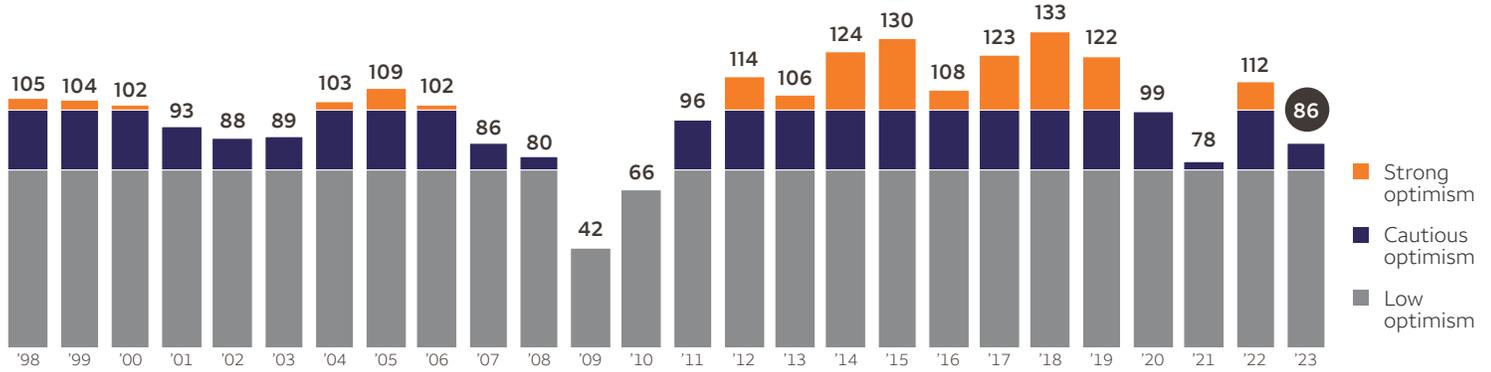
An OQ score of 100 or more represents strong optimism for increased local construction activity relative to the perceived level of activity for the prior calendar year.

A score of 75 to 99 represents more cautious or measured optimism. A score below 75 signals that fewer executives say local construction activity will increase than say it will decrease, a more pessimistic point of view.

Contractors and distributors have diverging OQ scores, as distributors (100) have a more optimistic view and contractors (76) are more cautious.

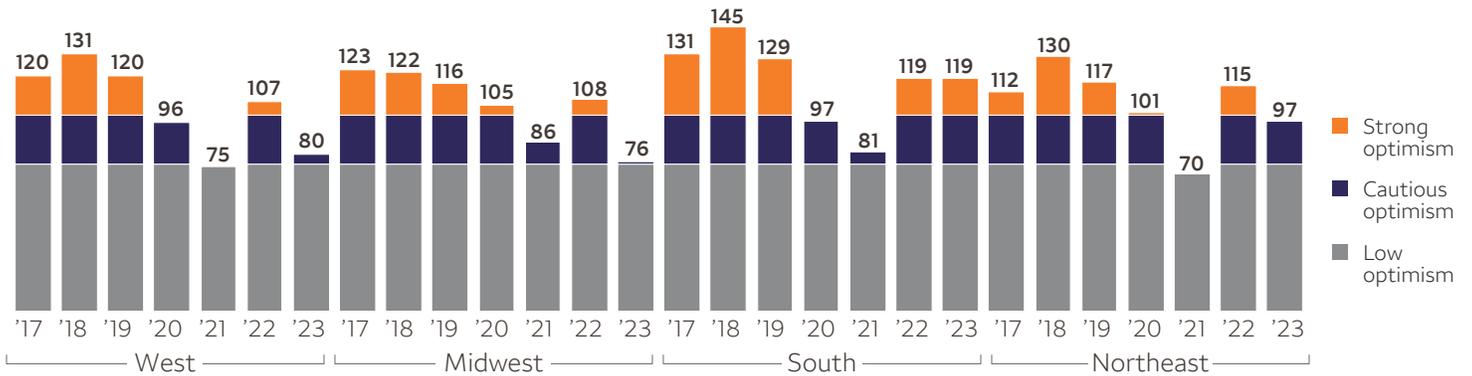


U.S. National Optimism Quotient



Executives forecast cautious optimism for local nonresidential construction. The Optimism Quotient (OQ) presented by Wells Fargo Equipment Finance is this survey’s primary metric for assessing respondents’ sentiment about local nonresidential construction activity. The measurement is directional in nature and gives an indication of industry executives’ optimism about the coming year compared to the previous year.

U.S. National Optimism Quotient by region



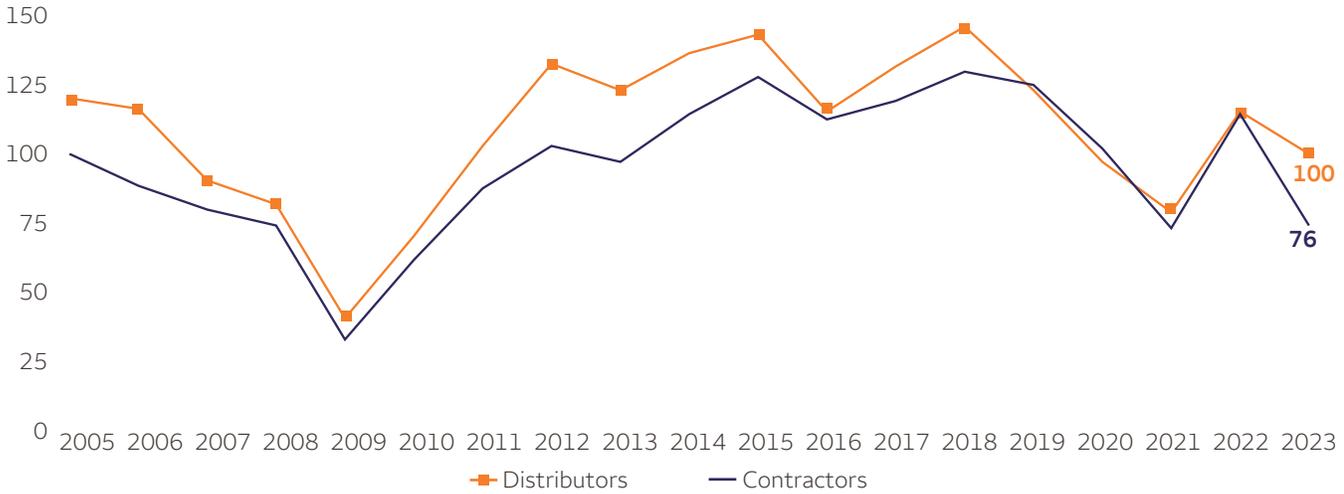
Base: Total respondents — 320 for 2023 forecast.

Cautious optimism is forecast across all regions.

Distributors lead contractors in optimism

Contractors are more tempered in their predictions, while distributors hover between strong and cautious optimism.

Distributors and Contractors U.S. National Optimism Quotient



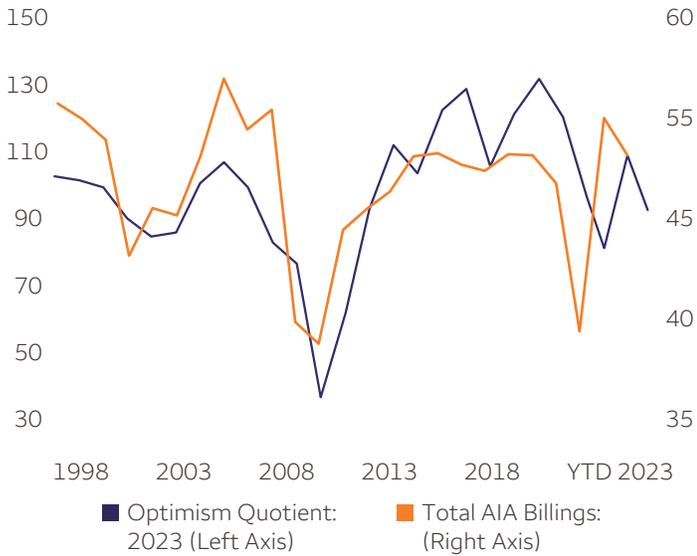
Base: Total Contractors (n=182), Distributors (n=98) in 2023 forecast.

Editor's note: Beginning with the 2014 survey, we have calculated the OQ for distributors using the combined responses of those that identified themselves as distributors or as equipment rental companies. In prior years, we did not combine the two categories.

How does Optimism Quotient compare to other key economic indices?

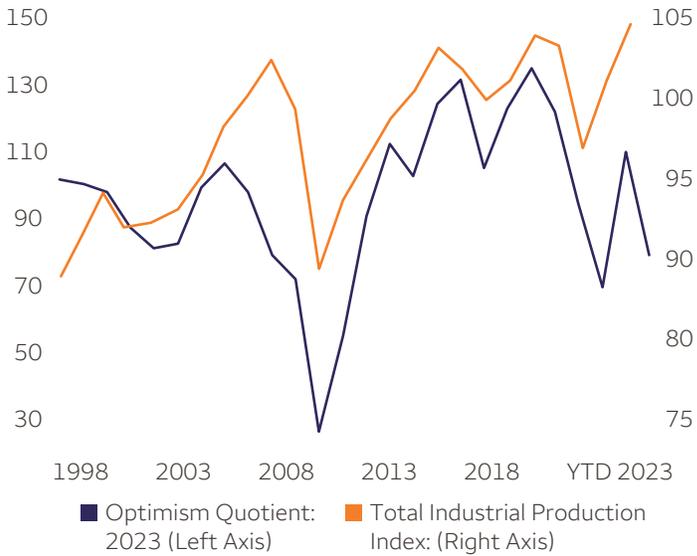
Although there are outlier years, the overall data over time shows that the Optimism Quotient tracks closely with four key economic indices. The indices that are significant to the construction industry outlook are the Architectural Billings Index, the Private Construction Index, the Industrial Production Index, and the Public Nonresidential Construction Index.

Optimism Quotient vs. Total Architectural Billing Index



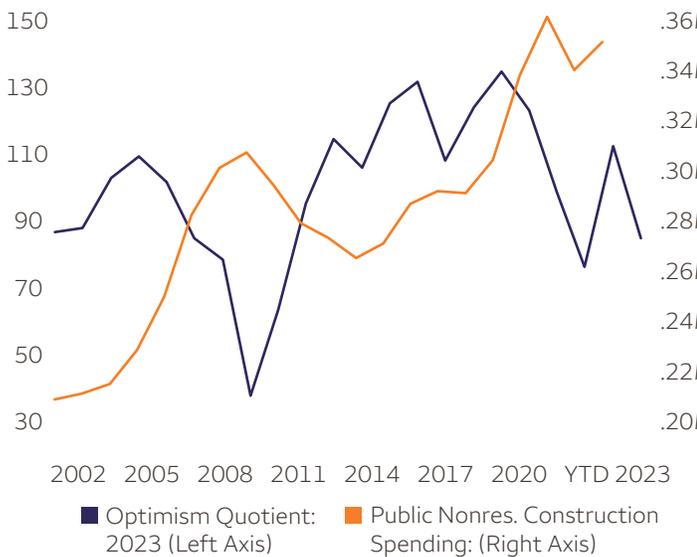
Source: The American Institute of Architects (AIA)

Optimism Quotient vs. Industrial Production Index



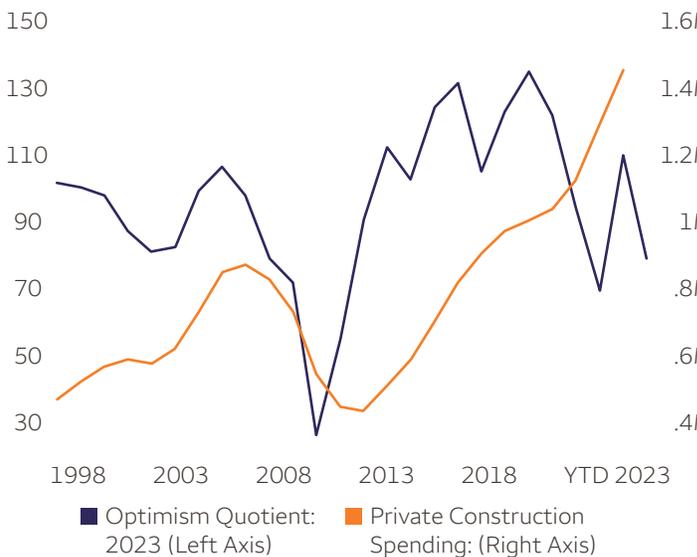
Source: Federal Reserve Board

Optimism Quotient vs. Public Non-residential Construction Index



Source: U.S. Census Bureau (BOC): Construction Put-In-Place (C30)

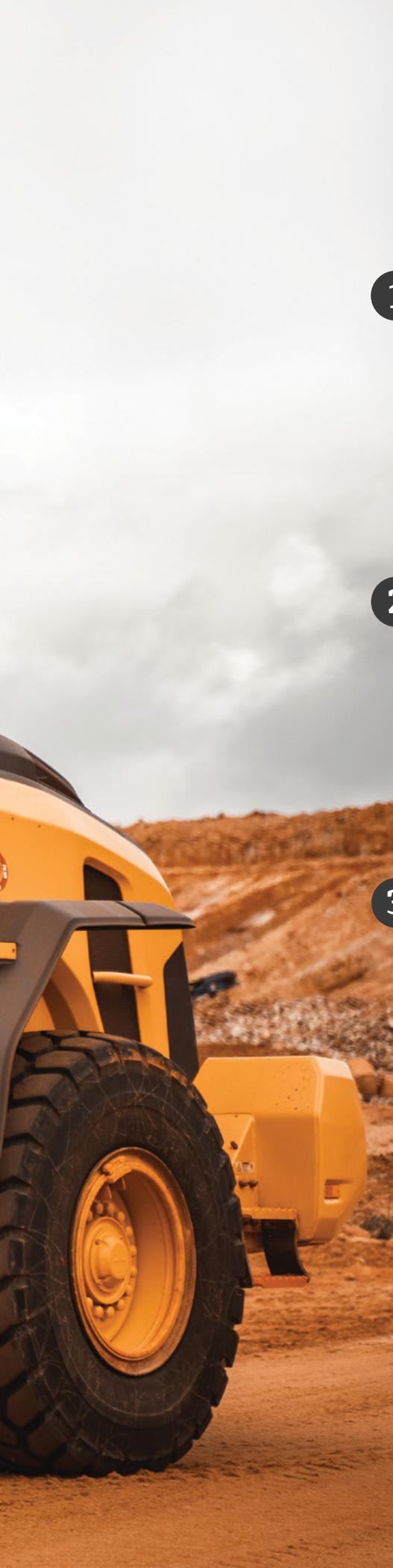
Optimism Quotient vs. Private Construction Index, billions of dollars



Source: U.S. Census Bureau (BOC): Construction Put-In-Place (C30)

Survey results





Three things to know for the year ahead

1 Industry sentiment has declined amid economic and supply chain concerns, though executives remain cautiously optimistic.

Overall sentiment has declined among both distributors and contractors, and across both the residential and nonresidential sectors. There is a sharp increase in anticipated decline in residential construction in particular for the year ahead. Those who predict residential construction activity will decrease are more likely to indicate that interest rates is their top cost concern, with inflation impacting cost of materials and overall profitability as well as delaying projects due to borrowing costs.

2 Despite economic headwinds there is cautious optimism looking ahead fueled by a strong backlog of jobs and orders, infrastructure spending, and anticipated supply chain stability.

Executives report that continued infrastructure spending, a strong backlog of jobs and hopes of an improved supply chain will keep the construction industry strong in 2023 amidst current economic concerns. Looking further ahead, more than half believe the industry will expand in two years, and among those who believe construction activity will remain the same, most believe it will increase in 2024 or beyond.

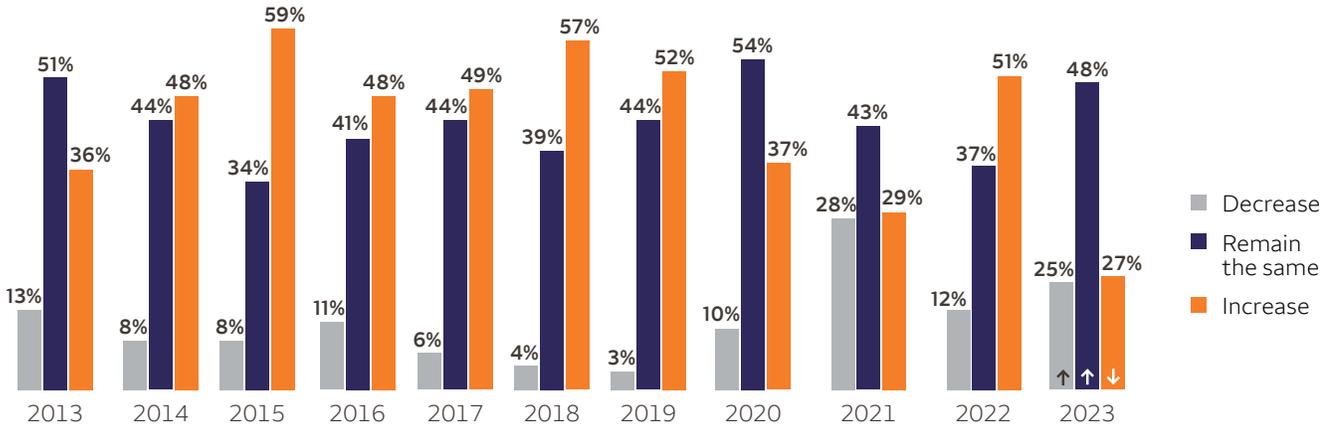
3 A shortage of skilled labor and increased labor costs continue to be dominant industry concerns

The ability to hire skilled employees continues to impact most businesses causing difficulties for 4 in 5 industry executives surveyed. The most common methods used to combat the issue are through wage increases and training. The availability of skilled workers also continues to be one of the main threats to the industry with just under half of executives saying it is one of their top industry concerns, followed closely by inflation. Over half of contractors also list it as one of their top two cost concerns for their business in 2023.

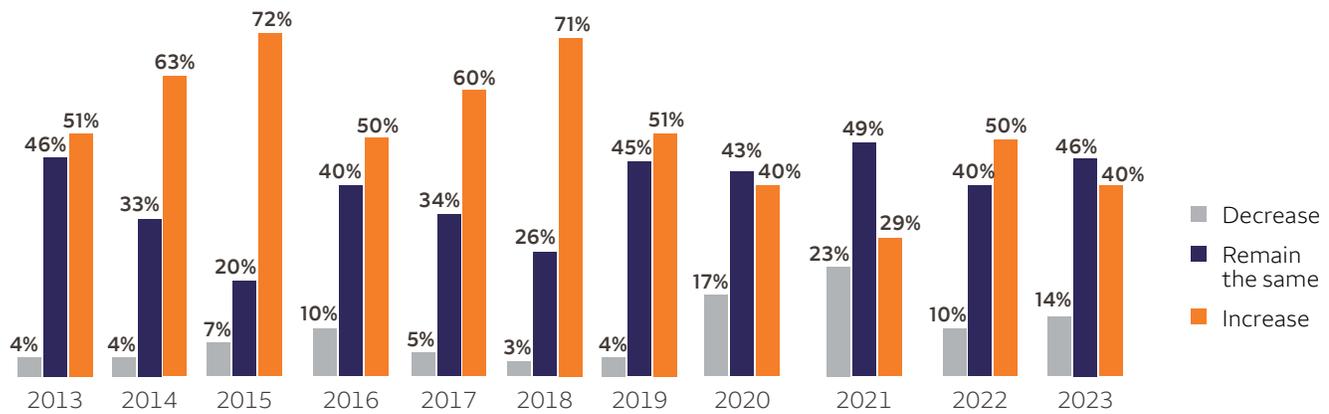
What does nonresidential construction look like in 2023

Nonresidential construction

Contractors — What is your projection for local nonresidential construction activity this year compared to last year?



Distributors — What is your projection for local nonresidential construction activity for this year compared to last year?



Note: The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

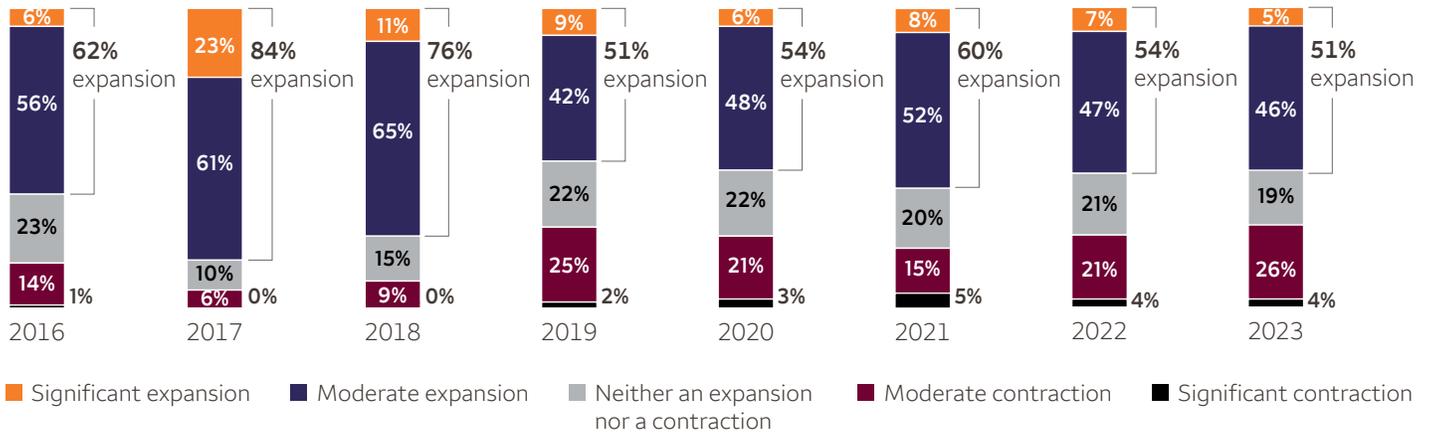
Base: Total contractors — 182 in 2023 forecast, 197 in 2022, 112 in 2021, 166 in 2020, 262 in 2019, 150 in 2018, 194 in 2017, 248 in 2016, 238 in 2015.

Base: Distributors — 98 in 2023 forecast, 86 in 2022, 80 in 2021, 102 in 2020, 127 in 2019, 105 in 2018, 134 in 2017, 174 in 2016, 138 in 2015.

Distributors project activity will increase or remain the same while contractors are more pessimistic. Contractors' expectations have shifted away from activity increasing and more now predict that activity will remain the same or decrease.

Industry growth

Two years from now, which of the following scenarios is most likely to occur?

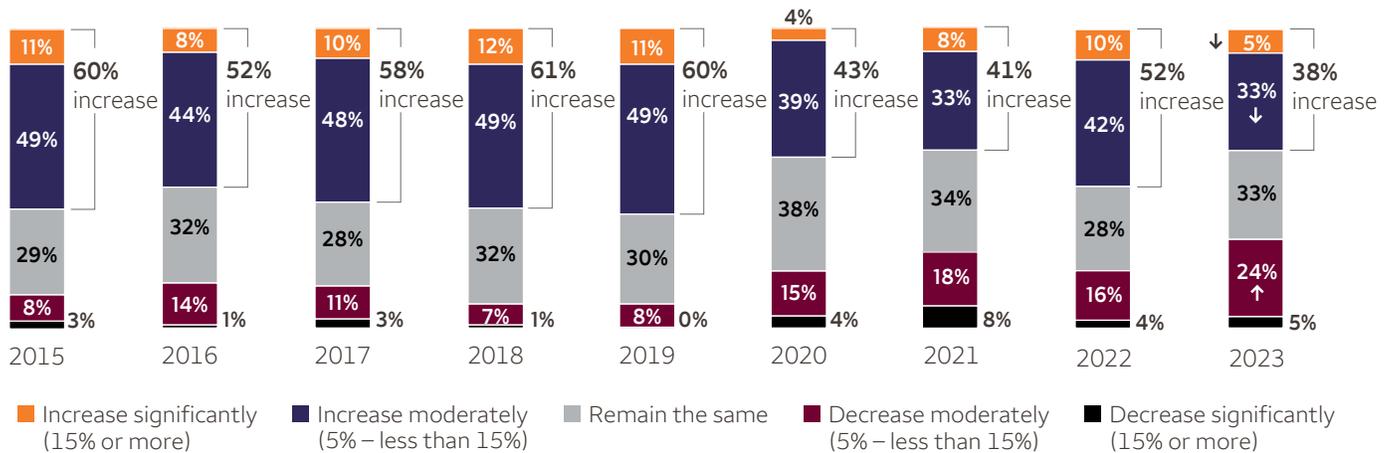


Base: Total respondents — 320 in 2023 forecast, 313 in 2022, 226 in 2021, 305 in 2020, 441 in 2019, 312 in 2018, 407 in 2017, 474 in 2016, 413 in 2015.

Half of executives predict there will be industry expansion two years from now, likely driven by aforementioned hope of supply chain and economic stabilization.

Net profits

Compared to net profits for 2022, do you think your net profits in 2023 will:



Note: The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

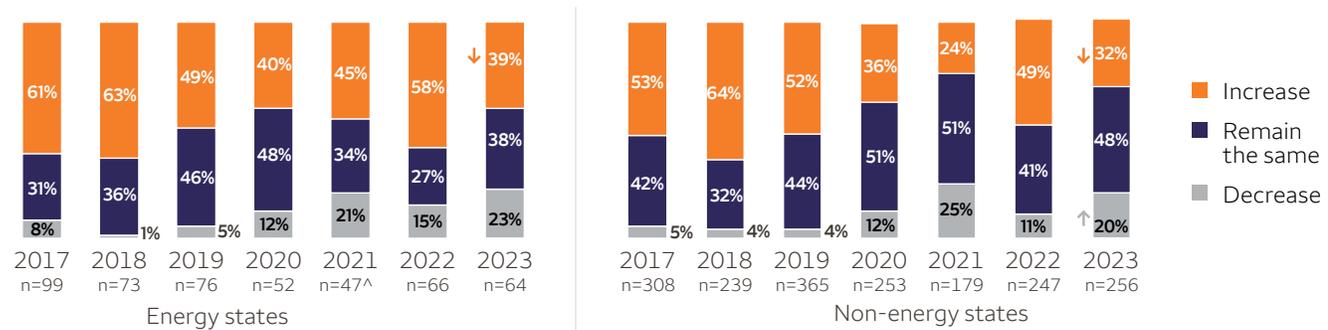
Base: Total respondents — 320 in 2023 forecast, 313 in 2022, 226 in 2021, 305 in 2020, 441 in 2019, 312 in 2018, 407 in 2017, 474 in 2016, 413 in 2015.

Amidst the myriad of industry concerns, executives have modest expectations around net profits. More executives are expecting net profits to decrease moderately compared to last year and fewer expect that net profits will increase moderately or significantly.

Nonresidential versus residential activity

Expectations for 2023 saw many significant shifts from the 2022 outlook. The number who predict activity will increase has gone down to only one-third of executives, while more are anticipating nonresidential construction will remain the same or decrease. Fewer from both non-energy and energy states are predicting an increase in activity. Approximately half from non-energy states and just over one-third from energy states expect activity will remain the same. Of the executives who expect nonresidential activity to remain consistent with activity last year, executives are cautious in predictions of when they expect activity to pick up, though more than half believe it will happen in 2024 or beyond.

What is your projection for local *nonresidential* construction activity in 2023 compared to 2022?

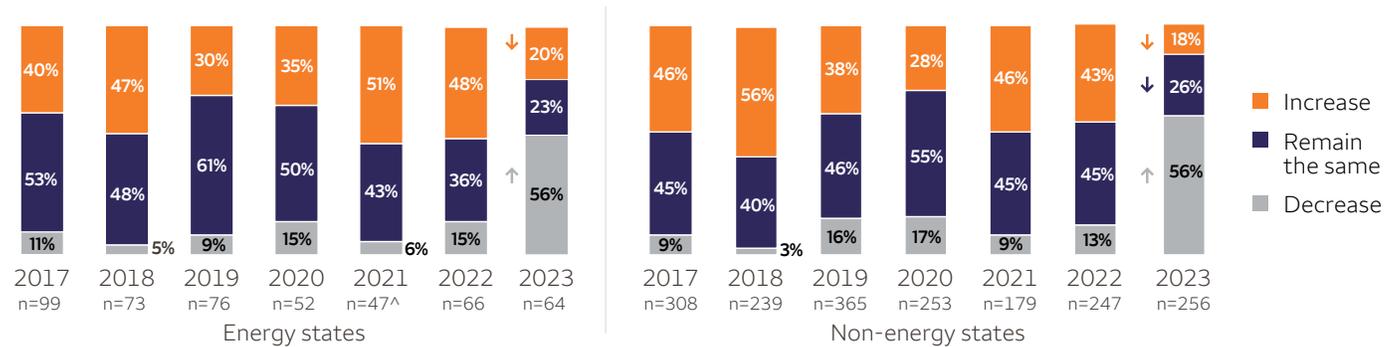


The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level. [^]Caution. Small base size.

Base: Total respondents — 320 for 2023 forecast.

Energy States = ND, SD, OK, TX, OH, WY, PA; Non-Energy States = all others

What is your projection for local *residential* construction activity in 2023 compared to 2022?



The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level [^]Caution. Small base size.

Base: Total respondents — 320 for 2023 forecast.

Energy States = ND, SD, OK, TX, OH, WY, PA; Non-Energy States = all others

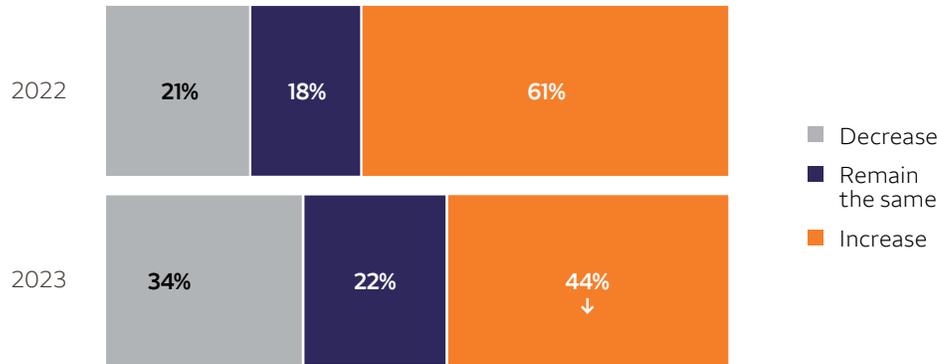
Sentiment shifted greatly among all executives for residential construction activity. More than half expect residential activity will decrease (56% in 2023 compared to only 13% who predicted activity to decrease in 2022). The remaining executives are split between those who predict activity will remain the same or increase. This shift is seen in both Energy and Non-Energy states whose expectations also shifted towards decreasing residential construction activity in 2023. Executives who believe activity will remain the same conservatively estimate an increase in residential activity in 2024 or beyond.

Sales heading into 2023

Distributors

Distributors are more guarded in their predictions for sales of new construction equipment in 2023. Expectations of a sales increase are down for next year (44% who believe sales will increase, down from 61% last year). About one in five expect sales of new equipment will remain the same while one-third fear that sales may decrease.

Do you think that your sales of new construction equipment this year compared to last year will:

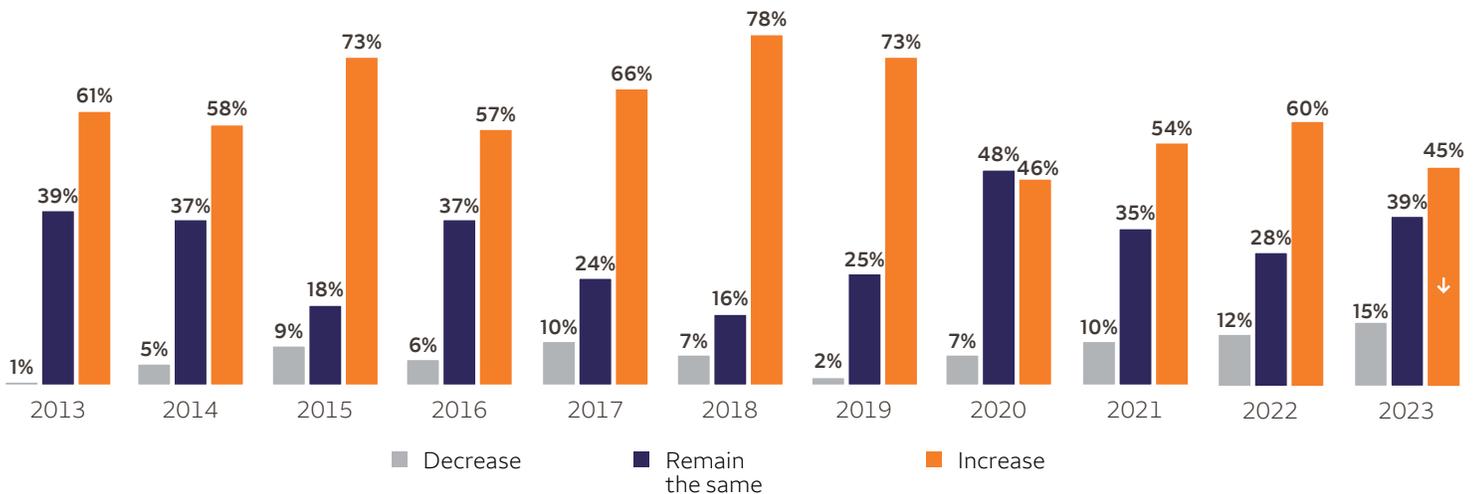


The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

Base: Total distributors and construction equipment manufacturers answering (excludes rental companies) — 98 in 2023 forecast, 71 in 2022.

Though again down from last year, nearly half of distributors predict strong sales for used construction equipment in 2023 (45% compared to 60% last year). About four in ten think sales of used equipment will remain the same in 2023.

Do you think that your sales of used construction equipment this year compared to last year will:



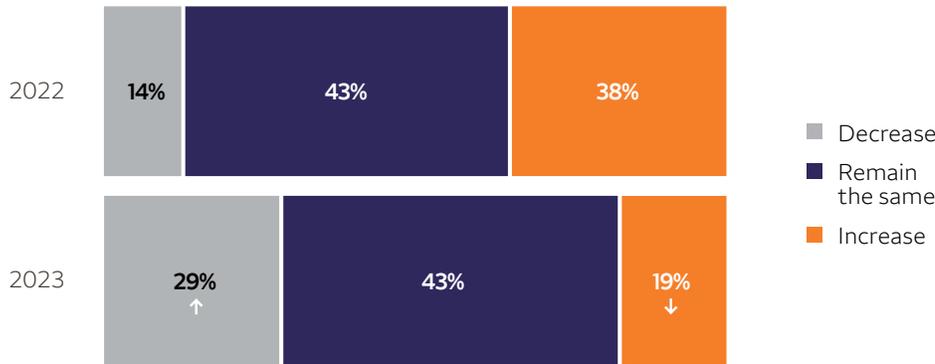
The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

Base: Total distributors answering — 97 in 2023 forecast, 85 in 2022, 83 in 2021, 101 in 2020, 124 in 2019, 103 in 2018, 134 in 2017, 167 in 2016, 132 in 2015.

Contractors

Contractors continue to be more conservative about purchases of new equipment in 2023 compared to distributors' expectations of sales, but even more so compared to last year. Down from last year, 19% of contractors believe their new equipment purchases will increase this year (compared to 38% last year). Just under half (43%) expect purchases to remain flat, and 29% plan to decrease their purchases of new equipment in 2023 (up from 14% last year).

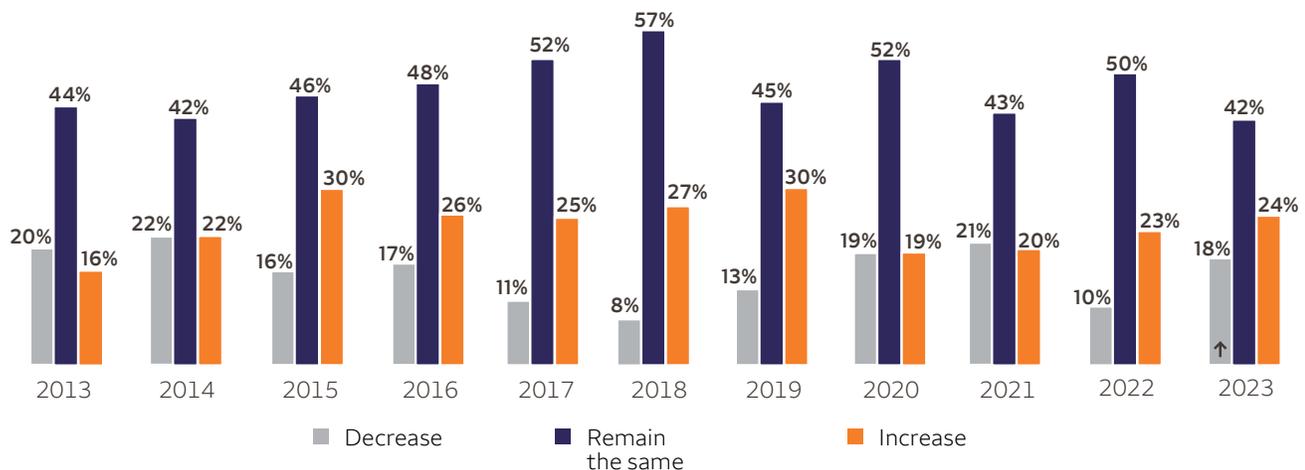
Do you think that your purchases of new construction equipment this year compared to last year will:



The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.
Base: Total contractors — 182 in 2023 forecast, 197 in 2022.

When asked about used equipment purchases, four in ten contractors anticipate purchases will remain the same, while one-quarter predict an increase, and 18% expect purchases to decrease in 2023 (up from 10% last year).

Do you think that your purchases of used construction equipment this year compared to last year will:



The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.
Base: Total contractors — 182 in 2023 forecast, 197 in 2022, 112 in 2021, 166 in 2020, 262 in 2019, 150 in 2018, 194 in 2017, 248 in 2016, 238 in 2015.

“The inability to find skilled workers willing to work is a severe constraint on the ability to bid and perform projects. Inflation in the price of materials has severely constrained traditional operating margins. Supply chain obstacles, political uncertainty, and the Russia-Ukraine conflict, have added significant uncertainty to growth prospects for 2023 and the near future.”

— Construction contractor



Construction industry overview

Headwinds Intensify for the Construction Industry

The construction sector is well accustomed to navigating tumultuous waters. In just the past two years, the construction industry has contended with a number of unusual challenges ranging from the pandemic, supply chain disruptions, material scarcity, labor shortages and sky-rocketing input costs. A challenging macroeconomic backdrop will present the latest test for the construction industry in 2023. Persistently hot inflation has reduced consumer purchasing power and forced households to increasingly rely on the built-up savings from the pandemic to fuel spending. As household savings grow thin, a pullback in consumer spending appears increasingly likely. Businesses' investment also appears set to retreat as inflation continues to run hot, with firms likely to cut back spending in order to balance rising input costs with reduced demand.

Taking these factors into account, our current expectation is for the national economy to dip into a mild recession starting in the second half of 2023. We also anticipate the downturn to be relatively short-lived, with the economy resuming a positive trajectory starting in the second quarter of 2024. High inflation has also spurred the Federal Reserve to aggressively tighten monetary policy. We expect the Fed to continue along this path until price pressures meaningfully abate.

Higher interest rates have already served to curtail residential construction. Fed tightening since early in the year has caused mortgage rates to skyrocket from roughly 3% at the end of 2021 to as high as 7%. This sharp increase in borrowing costs has crushed affordability for prospective buyers still attempting to digest the fast run up in home prices over the past two years. The result has been a considerable slowdown in nearly every facet of

the single-family residential sector. Unfortunately, the residential retreat still appears to be in the early innings. While mortgage rates have moved slightly lower in recent months, the steep drop-off in new home sales means builders are likely to further scale back single-family development. The downdraft in single-family building permits is a strong signal that builders are planning to reduce construction in the near term.

Multifamily construction has been more resilient to higher interest rates and is currently running at a strong pace. During November 2022, the count of multifamily units currently under construction rose to 933,800, a fresh cycle high and a level not seen since 1973. A more moderate pace of apartment and condo construction in the years ahead seems likely, however. Apartment vacancy rates remain low but have risen for four consecutive quarters, a trend largely explained by a considerable downshift in apartment demand for much of 2022. Moving forward, we expect rising financing costs, mounting supply, slowing household formation and rising recession fears to put downward pressure on multifamily construction in the year ahead.

All told, we look for total housing starts to decline sharply in 2023. Single-family starts likely will be the primary source of drag on overall starts. But we expect multifamily construction to also moderate slightly from the lofty pace of development seen over the past several years.

In contrast to the downswing in the residential sector, nonresidential activity ended 2022 on a positive note. As a whole, private nonresidential put-in-place spending was up 8.0% year-to-date in November. The stronger stream of project outlays has not been broad-based, however. While spending on manufacturing, commercial, healthcare,

educational and amusement & recreation rose during that period, spending on lodging, office, religious, transportation, communication and power projects declined. The value of new projects getting started rose considerably in 2022. The upshift in new projects getting underway will support the flow of project spending throughout the next several years. According to Dodge Data & Analytics, new nonresidential building starts were up 36% year-to-date as of November 2022.

Looking ahead, an economic downturn is likely to weigh heavily on nonresidential construction, the commercial category in particular. Robust consumer spending and the shift to ecommerce has been a boon for new warehouse construction. However, if consumers enter into a period of belt-tightening as we expect, businesses will seek to realign warehouse space needs with a lower demand environment. Even if not completely re-shored post-pandemic, the desire for shorter and stronger supply chains is likely to support demand for industrial buildings in the longer run. Still, the hot pace of warehouse construction is likely to cool down in coming years. A drop in consumer spending will weigh further on new retail development, which has languished over the past decade amid the rise of e-commerce. Hotel construction is another segment likely to feel the reverberations from a cyclical slowdown. Overall, the duration of trips will likely be shortened, especially as households and firms become more focused on costs as economic growth weakens. Rising prices of airline tickets and hotel stays already appear to be resulting in shorter trips, a trend that is likely to continue in 2023.

Recession fears have added an extra layer of uncertainty to the office market recovery, which remains on shaky ground following the pandemic-induced rise of hybrid work models. The slow recovery in the office market will be prolonged if office-using employment experiences a decline in the event of a recession. Many firms are indeed

cutting back their office footprint, and this trend likely will continue as leases signed before the pandemic expire over the next several years. Prospects for the office market are by no means bright, but we note that not every facet of the office market is depressed. Office markets where job and population growth have exceeded the national average, generally in the Sun Belt and Mountain West, are holding up better compared to the large coastal gateway markets.

That still leaves a potential supply overhang of office space which will keep vacancy rates elevated for the foreseeable future. In addition to sublease space hitting the market at an increasing rate, a wave of office projects that started prior to the pandemic are expected to deliver over the next few years, compounding the supply challenge. Weak demand and an ever-daunting supply picture mean new office construction will likely remain depressed over the next several years.

Several sectors are likely to hold up better in 2023. The boom in manufacturing projects over the past two years has been supported by the robust pace of consumer spending experienced recently. But it has also been owed to several structural shifts unlikely to be altered by business cycle fluctuations. Notably, the transition to vehicle electrification has yielded a remarkable rise in electric-vehicle (EV) battery factories. The need to bolster battery plant capacity further on the back of soaring demand means further expansion of the EV supply chain appears in the offing.

What's more, the global semiconductor shortage has led to a marked step-up in domestic microchip plant construction. Congress recently passed the CHIPS and Science Act, which provides \$53 billion over 5 years to expand semiconductor manufacturing capacity and provides a 25% tax credit for new and expanded chip manufacturing facilities, as well as factories that manufacture chip-making equipment. The bill arrives as several massive new semiconductor plants break

ground in Ohio, Texas and Arizona. The recent volatility in global energy markets has cast the United States back into the spotlight as a top oil and gas producer. New investment in liquefied natural gas (LNG), refining and renewable energy projects could be a long-term boon for energy-related construction projects.

Institutional projects are another area of construction that we expect to hold up relatively well over the next few years, largely due to postponed repair and renovation projects during the pandemic in healthcare and education buildings. New institutional projects, however, will likely struggle to get underway amid a rising cost environment. Still, overall healthcare demand, driven by an aging demographic and deferred visits during the pandemic, will be supportive of healthcare project spending in the years to come.

Education projects are another segment that is likely to expand in 2023 as a backlog of put-off maintenance projects are worked through. In the short term, spending on all types of educational buildings may be propped up as facilities are retrofitted with technologies in order to improve HVAC systems, virtual access and student safety. On the other hand, education institutions will continue to contend with the structural headwinds of slowing population growth and lower enrollments. If job growth deteriorates as we expect, enrollments may begin to rise, even if remaining below historical averages. Prospects for student loan forgiveness could potentially boost enrollments long-term. Spending on higher educational buildings, however, is likely to be a major drag on overall educational construction moving forward.

Public works projects are poised to provide a steady foundation for a potentially shaky year for the construction industry in 2023. Projects stemming from the Infrastructure Investment and Jobs Act (IIJA), which was enacted in 2021, will likely begin to unfold and continue to roll out over the course of the next few years. The IIJA contains \$1.2 trillion in gross spending over five years, of which about \$550 billion is new federal spending on

infrastructure. As part of that bill, surface transportation and other transportation-related projects' funding was reauthorized for the next five years. For the most part, the new funds contained in the IIJA were authorized to be spent primarily on infrastructure needs tied to roads, bridges, ports, public transit, water and broadband. Shovel-ready projects are likely to begin sooner as there are typically long lead times for infrastructure projects.

The Inflation Reduction Act (IRA) is another fiscal package that will be supportive of construction activity. The IRA comprises roughly \$500 billion of new spending and tax credits over the next 10 years. The largest component is the creation, expansion and extension of a variety of tax credits that incentivize clean energy production and consumption, reducing greenhouse gas emissions and other environmental causes. For example, the IRA is expected to double domestic wind and solar generation through 2030.

The construction industry appears set to downshift amid a difficult macroeconomic backdrop in 2023. One silver lining to a slowdown will be more relief in terms of the pervasive supply side constraints which have afflicted builders and developers for much of the pandemic era. A slowdown in demand already appears to be contributing to better material availability and pricing. For instance, the pullback in residential activity this year has coincided with lumber prices returning to pre-pandemic averages. Even as several key material inputs remain scarce, building material availability should continue to improve as supply chains heal further and waning construction activity brings supply and demand for these inputs into better balance.

Labor shortages may also begin to lessen in the year ahead. Although construction job openings remain above 2021 levels, the count of vacancies has declined in recent months. Cooling in demand for construction labor has likely occurred on the residential side as home builders scale back production. If builders continue to scale back production as we anticipate, that would free up workers for other projects. That said, a shortfall of labor has been a



long-standing challenge for construction firms and pre-dates the pandemic, meaning the supply of workers is only likely to increase modestly. Consequently, labor costs for construction firms will likely be slower to descend than all-industry labor costs.

The coming year is sure to present the latest test for the construction industry. The Fed's efforts to tamp down inflation have resulted in markedly higher mortgage rates. A broad-based decline in building permits recently suggests that recent retreat in residential construction will continue in coming months. Rising interest rates also now appear to be making their mark on nonresidential construction. The forward-looking Architecture Billings Index (ABI) declined for the second straight month in November, falling further into contraction territory. The recent decline in the ABI points to nonresidential spending weakening over the course of the next year.

Construction lending also appears to be tightening as recession fears loom. The Federal Reserve's Senior Loan Officer Opinion Survey for October found that an increasing share of banks tightened lending standards for multifamily, nonresidential and construction & land development in the third quarter. More conservative lending on the part of banks is likely to weigh on the construction project pipeline moving forward.

All told, we expect spending on residential buildings to contract this year as elevated mortgage rates leads to builders to cut back single-family home building. Private nonresidential construction looks set to weaken, although manufacturing and energy projects will be notable areas of strength. Commercial expenditures are poised to downshift alongside waning economic growth. Institutional projects are likely to be more resilient to a downturn, yet are still expected to slow. Public spending will help offset cyclical softness in the private nonresidential category, with projects stemming from IIJA and IRA beginning to roll out over the course of the next few years.



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The above commentary is based on the 2023 Construction Outlook published by the Wells Fargo Economics Team on January 13, 2023. For additional information, please contact economics@wellsfargo.com.

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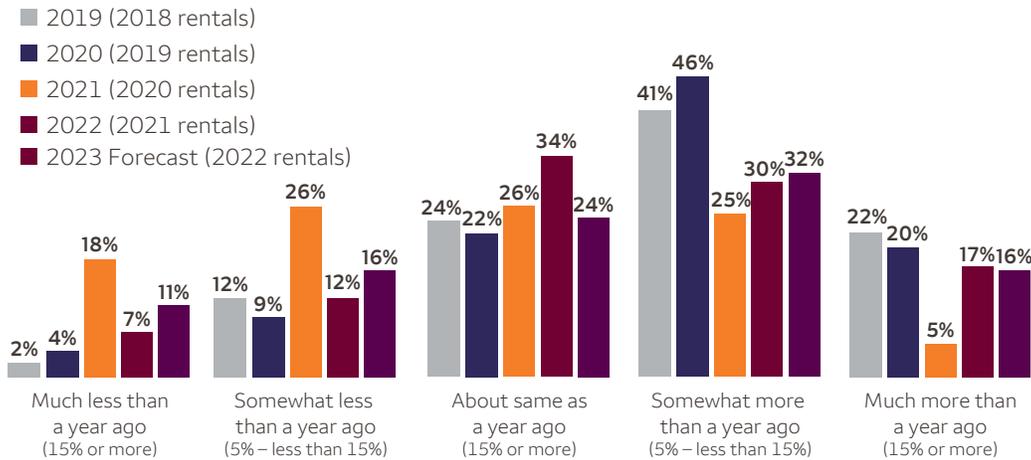


Rental review



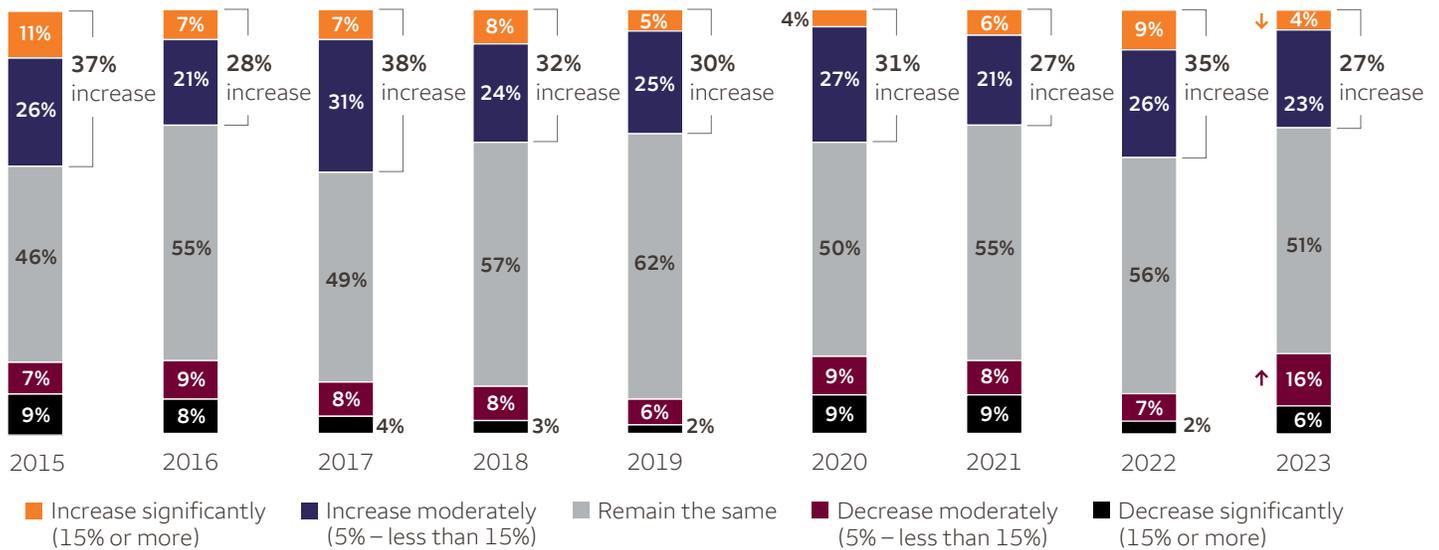
Consistent with last year, 16% of distributors indicate they are renting out much more equipment than a year ago. Distributors have similar fleet utilization to last year, though fewer are seeing 90% or more utilization of their fleet (6% down from 14% last year). Half of contractors believe they will rent the same amount of equipment in 2023 as they did in 2022, but the number of contractors who report their rentals will increase significantly has gone down from 9% to 4%, while the number who report it will decrease moderately has gone up (7% last year to 16% this year).

(Distributors and rental companies) Compared to a year ago, how much construction equipment are you now *renting* out to contractors?



Base: Distributors and rental companies — 98 in 2023 forecast, 86 in 2022, 80 in 2021, 102 in 2020, 127 in 2019.

(Contractors who rented equipment) Do you think that your rental of heavy construction equipment this year compared to last year will:



The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

Base: Contractors who rented heavy construction equipment in 2022 — 135 in 2023 forecast, 162 in 2022, 86 in 2021, 139 in 2020, 204 in 2019, 119 in 2018, 155 in 2017, 208 in 2016, 189 in 2015.

(Contractors) Please select the one or two top reasons you would consider renting construction equipment.

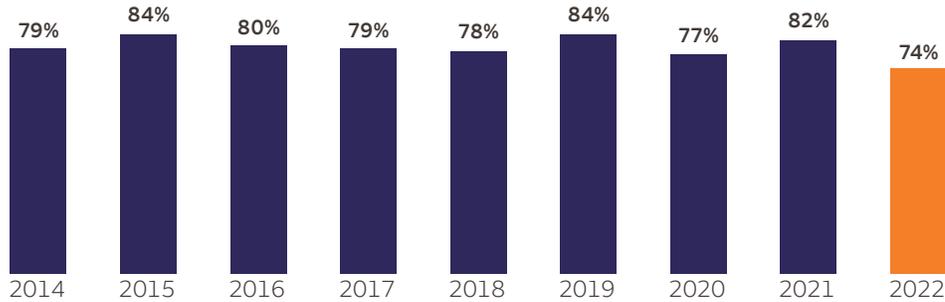
Top 2 Reasons	2022	2023
Flexibility; I can return equipment whenever I want	62%	52%
Rental equipment is readily available	29%	28%
Long order cycles for equipment purchase	9%	21% ↑
High costs to repair and maintain my own fleet	18%	17%
I don't want to own/acquire equipment	13%	12%
Build equity before purchase	8%	12%
Rental rates are low and attractive	5%	4%
None of these	10%	6%

The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.

Base: Total contractors: 145 in 2023 forecast, 168 in 2022.

Flexibility continues to be the primary reason contractors decide to rent construction equipment. Other top reasons for renting include availability of rental equipment, the long order cycles for equipment purchase (21%, up from 9% last year), and high costs to repair and maintain a proprietary fleet. The most common duration for the rental period is monthly, consistent with past years.

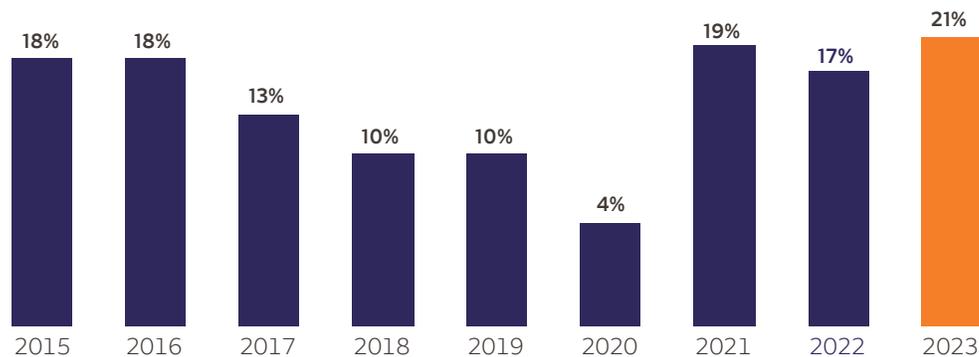
(Contractors) Did your company rent any heavy construction equipment last year? (% — Yes)



Base: Total contractors — 182 in 2023 forecast, 197 in 2022, 112 in 2021, 166 in 2020, 262 in 2019, 150 in 2018, 194 in 2017, 248 in 2016, 238 in 2015, 261 in 2014.

Rental of heavy construction equipment remains strong and on par with previous years. About three-quarters of contractors rented heavy construction equipment in 2022. Of those who did not rent in 2022, about one in five predict that they will rent in 2023.

(Contractors who did not rent heavy construction equipment in 2022) Do you think that you will rent heavy construction equipment in 2023? (% — Yes)



Base: Contractors that did not rent any heavy construction equipment last year — 47^ in 2023 forecast, 35^ in 2022, 26^ in 2021, 27^ in 2020, 58 in 2019, 31^ in 2018, 39^ in 2017, 40^ in 2016, 49^ in 2015. ^Small base size.

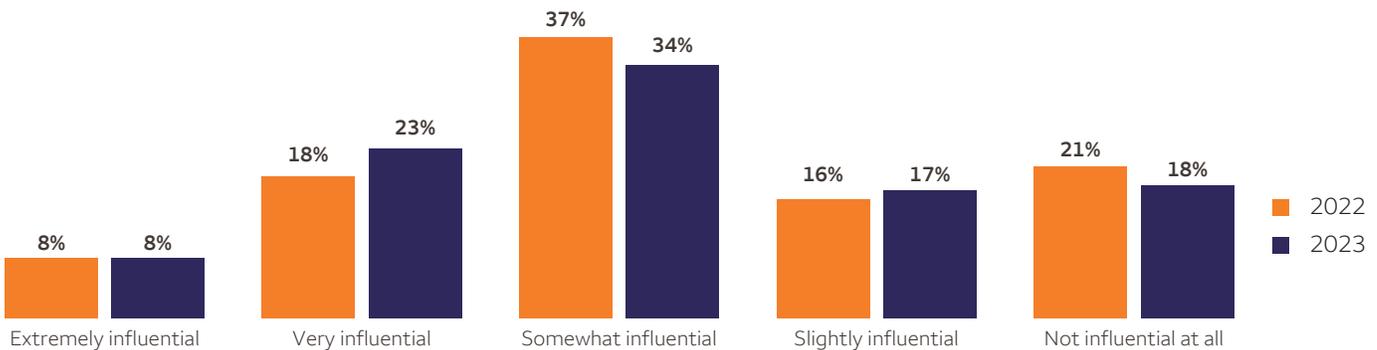
(Contractors) What would you need to happen for you to want to buy construction equipment?

	2022	2023
Stronger backlog of jobs	27%	27%
Lower equipment costs	15%	21%
Long term confidence in the local economy	16%	15%
Long term confidence in the national economy	22%	11% ↓
Increasing rental costs	3%	8%
Low interest rates	4%	4%
Shorter lead time for order delivery	8%	2% ↓
Other	5%	11% ↑

The up/down arrows denote a significant difference compared to 2022 at the 95% confidence level.
 Base: Total contractors: 168 in 2023 forecast, 179 in 2022.

A stronger backlog of jobs is most important to about one-quarter of contractors when considering buying instead of renting. Lower equipment costs, along with long-term confidence in the local/national economy are other top driving factors in contractors’ willingness to buy equipment. Both long term confidence in the national economy and shorter lead time for order delivery are down from last year (11% vs. 22% and 2% vs. 8%, respectively).

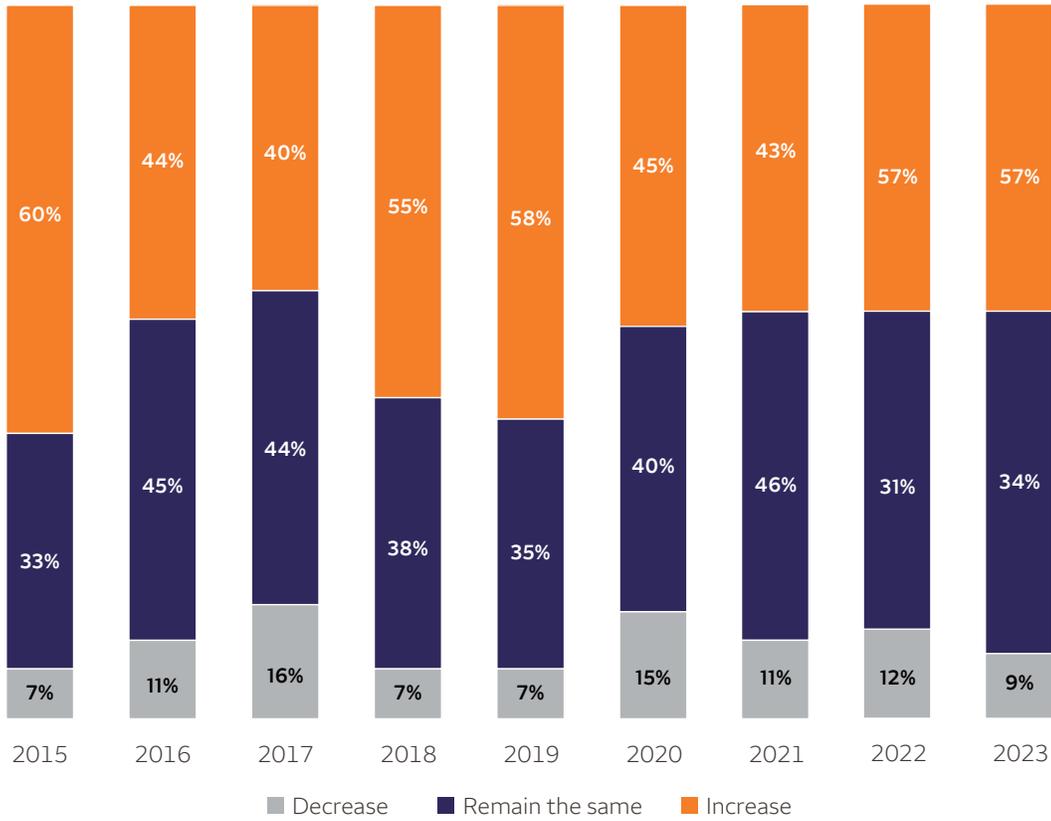
(Contractors) To what degree are equipment rental costs an influence in your decision to buy vs rent equipment in 2023?



Base: Contractors who gave a reason to buy construction equipment instead of rent — 168 in 2023 forecast.

The impact of rental costs on a contractor’s decision to buy or rent equipment continues to be mixed. About three in ten say rental costs are very or extremely influential, while one-third say it is somewhat influential, and the balance say it is slightly or not an influential factor.

(Distributors) Do you think that the size of your rental fleet this year compared to last year will:



Base: Total distributors: 98 in 2023 forecast, 86 in 2022, 80 in 2021, 102 in 2020; 127 in 2019; 105 in 2018; 134 in 2017; 174 in 2016; 138 in 2015; 175 in 2014.

Over half of distributors expect to increase the size of their rental fleet in 2023. One-third of distributors expect their fleet size will remain the same, and just one in ten expect it to decrease. Eight in ten distributors, significantly more than last year, increased their rental prices in 2022 and nearly seven in ten expect to raise rental prices in 2023.



Industry risks, cost concerns, and opportunities



Of these factors, what are your top 3 concerns for the U.S. construction industry in 2023? Please rank the top three.

	Top answer % (Ranked 1st)	Top 3 (Ranked 1st–3rd)
Availability of skilled workers	21%	43%
Inflation	17%	42%
Economic uncertainty	14%	34%
Supply chain disruptions	12%	30%
Interest rates rising	9%	31%
Government/regulatory policy	5%	14%
Rising material costs	5%	21%
Diesel/gas costs	5%	22%
High labor/wage costs	3%	15%
Declining non-residential construction market	3%	6%
Energy prices such as oil and natural gas	3%	7%
Declining residential construction market	2%	10%
Environmental policy	1%	3%
Taxes	1%	3%

Base: Total respondents — 320 for 2023 forecast.

One in five executives ranked the availability of skilled workers as the single greatest risk to the U.S. construction industry in 2023. When taking a broader look at the top three concerns, the leading concern is still the availability of skilled workers followed by inflation, economic uncertainty, interest rates rising, and supply chain disruptions

Rising interest rates are impacting overall profitability for about half, and inflation’s impact on the cost of materials affects about eight in ten executives.

In which of the following ways, if any, have *rising interest rates* impacted your business in 2022?

Increased borrowing costs are impacting overall profitability	46%
New projects delayed due to borrowing costs	39%
Existing project paused due to borrowing costs	18%
Difficulty obtaining access to credit	7%
None of these	29%

Base: Total respondents — 320 for 2023 forecast.

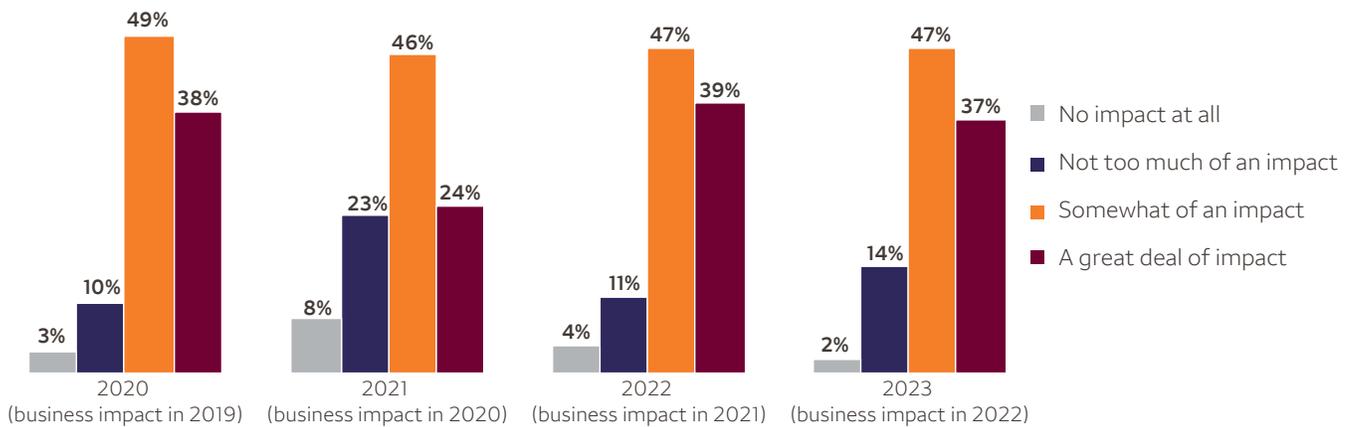
Top inflation impacts to businesses in 2023

Cost of materials	82%
Overall profitability	59%
Cash flow constraints	31%
Renegotiation of contracts	23%
Decrease in new jobs booked	19%
None of these	3%

Base: Total respondents — 320 for 2023 forecast.

Businesses have been impacted by the skilled employee shortage, about one-third of executives say that their business has been greatly impacted and almost half say that it has had somewhat of an impact. In response, executives are increasing wages and offering more training to mitigate the skilled employee shortage.

To what degree has the ability to hire skilled employees impacted your business in 2022?



Base: Total respondents – 320 in 2023 forecast, 313 in 2022, 226 in 2021, 305 in 2019.

What, if anything, are you doing to mitigate the skilled employee shortage?

	2023
Wage increases	73%
Training	48%
Working with local recruiters	27%
Career advancement	26%
Offering better PTO benefits	23%
Offering better healthcare benefits	19%
Exploring ways automation can take the place of humans	14%
Nothing/does not apply	8%
Other	6%

Base: Total respondents — 320 for 2023 forecast.



Contractor Cost Concerns

Fiscally, contractors are most concerned about the ability to hire qualified workers (57%, down from 68% last year). Other top concerns include material costs and employee wages and other benefits. Concern regarding fuel costs and interest rates are both up from last year (30% vs. 10% and 14% vs. 4%, respectively), while concern about taxes is down (8% vs. 16% last year).

(Contractors) Thinking about the various types of cost concerns you may have for your business, please select your first and second concerns.

	Top 2 — 2022	Top 2 — 2023
Ability to hire qualified workers	68%	57% ↓
Materials costs	43%	38%
Employee wages and other benefits	34%	34%
Fuel costs	10%	30% ↑
Interest rates	4%	14% ↑
Taxes	16%	8% ↓
Equipment purchase costs	11%	8%
Healthcare costs	11%	6%
Equipment rental costs	1%	3%
Other	4%	4%

* 59% of contractors surveyed have more than 50 employees, implying they have health insurance for employees

Base: Total contractors: 182 in 2023 forecast, 197 in 2022.



Please rank up to the top 3 growth opportunities you see for the U.S. construction industry in 2023.

	Ranked 1st choice	Top three choices
Improved overall economy	22%	50%
Interest rate stabilization	18%	49%
Improved qualified labor availability	15%	38%
Increased government spending	14%	23%
Stable political environment	11%	33%
Improving nonresidential construction market	9%	22%
Improving consumer confidence	5%	28%
Improving residential construction market	3%	13%
Industry favorable regulatory environment	3%	16%

Base: Total respondents — 320 for 2023 forecast.

Executives report that an improved overall economy, interest rate stabilization, and improved qualified labor availability are the three greatest opportunities for growth in the construction industry next year.



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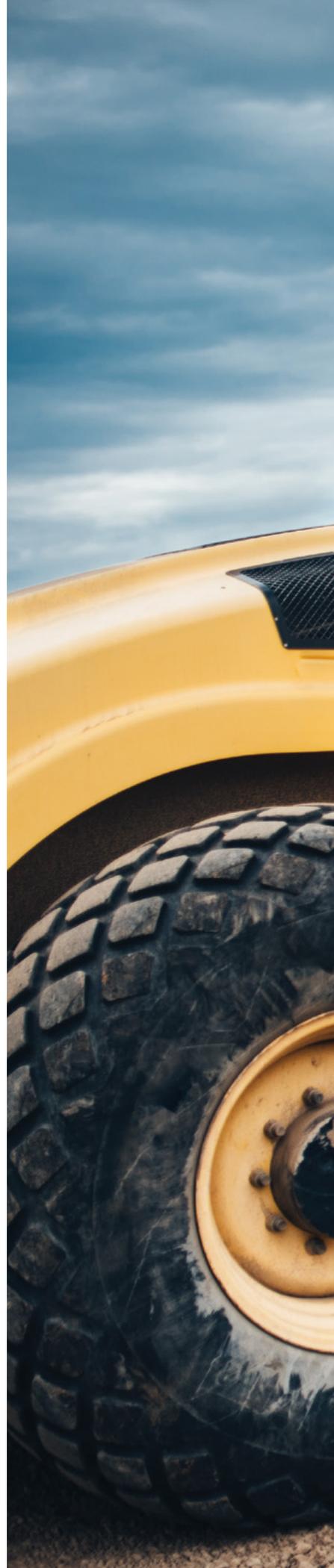
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¹. Company data as of January 2023.





“Demand is still pent-up since the pandemic. Supply chain issues have slowed some of the recovery. I think with things cooling down we will see the supply chain stabilizing and getting caught up and ready for the rebound.”

— Construction contractor



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