Nov.-Dec. 2022

NAWIC

Today

The official publication of the National Association of Women in Construction

INDUSTRY TRENDS

NAWIC
The National Association of Women in Construction

Leading Builders. Building Leaders.

The official publication of the National Association of Women in Construction.

Core Purpose: To Strengthen and Amplify the Success of Women in the Construction Industry

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HOW TO CONTACT US: publications@nawic.org

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Jan. 3
Marketing Committee: WIC Week Prep Webinar

Jan. 5
Tradeswomen Industry Council Meeting: Goal Setting & Time Management

Feb. 2
Tradeswomen Industry Council Meeting: Leadership Mindset

Feb. 7
Marketing Committee: NAWIC Events Webinar

March 2
Women in Leadership Roles Virtual Panel

March 5-11
WIC Week

Find out more information and register now at nawic.org!

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THE OFFICIAL PODCAST of NAWIC

The National Association of **Women in Construction**

Keeping up with the times & technology

Karen Hager, CBT, CIT, ESP
President-Elect

When I began my career in construction accounting 36 years ago, DOS was the main operating system and C-Calc was the common spreadsheet software. Within a couple of years, DOS was still used, but I was introduced to Windows 3.0, Lotus, and WordPerfect. Wow… don't I feel old? It took a few years more before Excel and Word became the norm for office administration. Novell, Unix and Xenix were the popular operating systems before Windows overtook the market.

Adobe Acrobat is quickly being replaced by Bluebeam Revu, with higher levels allowing the user to view, markup and digitally sign plans, review RFI's and submittals, and so much more. AutoCAD's geometric approach is being replaced by Revit's 3D modeling approach, with Revit having the drawback of only being offered on Windows operating systems. Where architectural renderings used to be hand drawn by a team of drafters, now there are multiple companies that offer 3D rendering services, giving the client a customized view of their project.

While companies are having issues with the supply chain, they are getting inventive and using 3D printing to replace certain parts in equipment and substitute particular building materials. Companies are solving skilled labor shortages by purchasing large equipment that can be run remotely, thereby being able to control safety issues and workmen's compensation costs, while creating a more diverse workforce that appeals to a younger audience.

Where computers used to take up whole rooms full of equipment, now everyone with a smart phone can view, modify, and save documents, drawings, timecards, etc. in the palm of their hands.

Technology continues to advance at a rapid pace and we, as women in construction, need to have the skills and knowledge to keep up. The NAWIC Education Foundation is a valuable tool to start building the necessary skills to keep ahead of the curve. There are a variety of other courses offered online that can be taken during a time that doesn't interfere with our work or family lives, and many colleges now offer construction management courses, both on campus and online. No matter which way you choose to continue your education, it is becoming necessary to continue to stay relevant to our employers.

Association News

Preparing for the best year yet

Crissy Ingram, CAE
Executive Director

As of Oct. 1, we are officially in our new NAWIC year! The past year was truly monumental for NAWIC, with reaching the highest membership we have had in many years, an extremely successful WIC Week and Annual Conference, and so much more. Now the challenge becomes- how do we beat it?

Our National Board of Directors has been hard at work, ensuring that we continue the momentum we had from last year into this year. President Lauline Mitchell is doing an amazing job guiding the board and reminding us to consider all the many paths our members take toward our collective mission.

If you want to join the National Board and be part of the national-level planning, applications are now open! You can email me at crissyi@nawic.org for more information. The application window closes Feb. 1, 2023.

President Lauline is holding a virtual town hall to go over our website, the mobile app, and our new chapter website templates! We will also be available to answer your questions and hear your thoughts and concerns! Register now on our website.

We have started planning for the 68th Annual Conference and our 25th WIC Week! We are listening to the feedback from our recent membership survey and the Annual Conference survey and planning with your wants and needs in mind. Keep an eye on our social media channels and emails for more information on both of those events.

Our WIC Week pins and posters are available for pre-order! Make sure you grab some for yourself and your company before we run out. Head to nawic.org/nawic_store to get yours ordered today.

And please remember- the national staff is here to help you in any way you need. You can find our emails and positions on our website. Membership Coordinator Amber Kohut and Communications Manager Makenzie Plusnick are also starting a monthly Power Hour, where the staff can answer any questions you may have and you can chat with other chapters! Check out the calendar for more information on that. We're here to support you and your chapter!

11 Construction Industry Trends to Watch

COURTESY OF EXPLODING TOPICS

According to McKinsey, construction is the largest industry in the world. And it makes up about 13% of global GDP.

But it is also one of the slowest growing. However, new construction technologies are looking to speed up the rate of change.

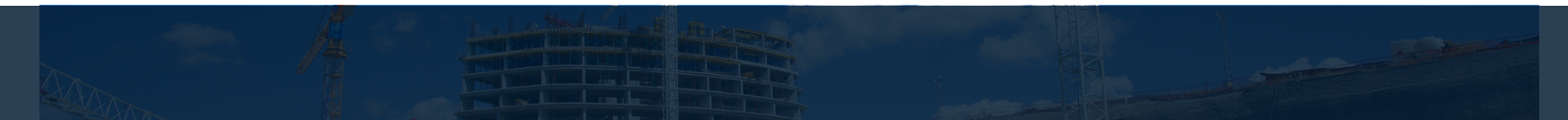
Read on to learn about some of the most important trends in the construction industry.

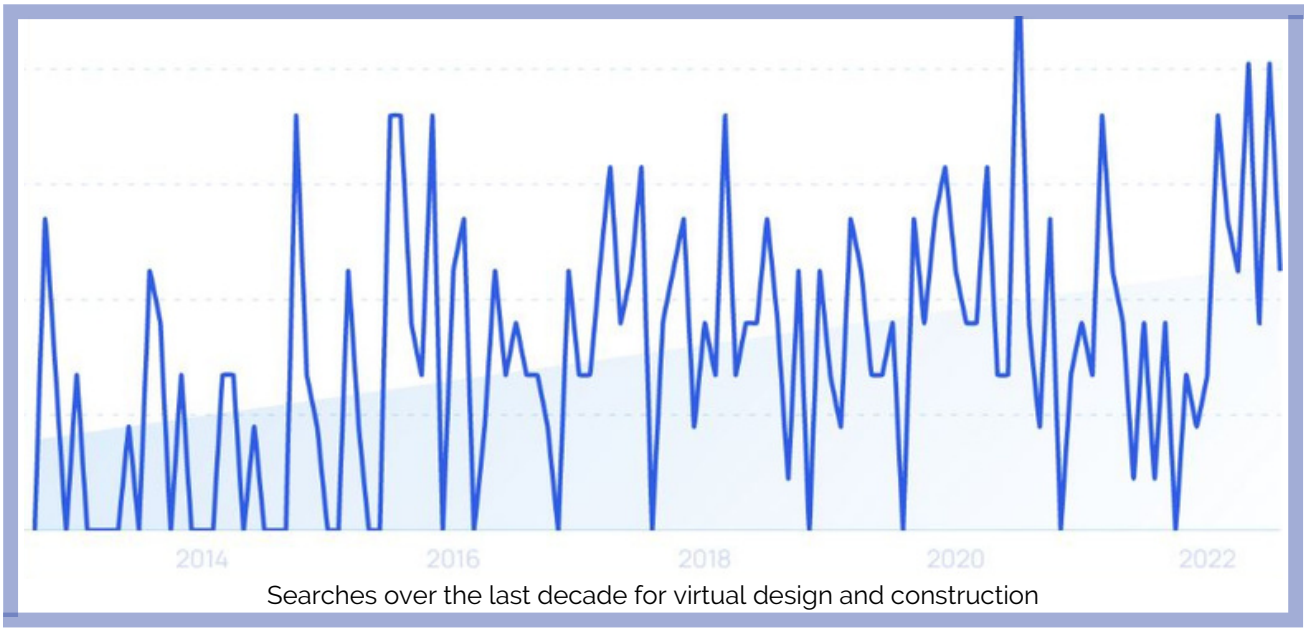
1. The Virtual Construction Market Sees Rapid Growth

The construction industry is increasingly adopting a variety of new technologies. Many of these technologies involve virtual design and visualization. And they range from Building Information Modeling (BIM) to Construction Management Software.

Virtual design and construction (VDC) describe the growing use of virtual environments to engineer and visualize the construction of structures before they're actually built in the physical world.

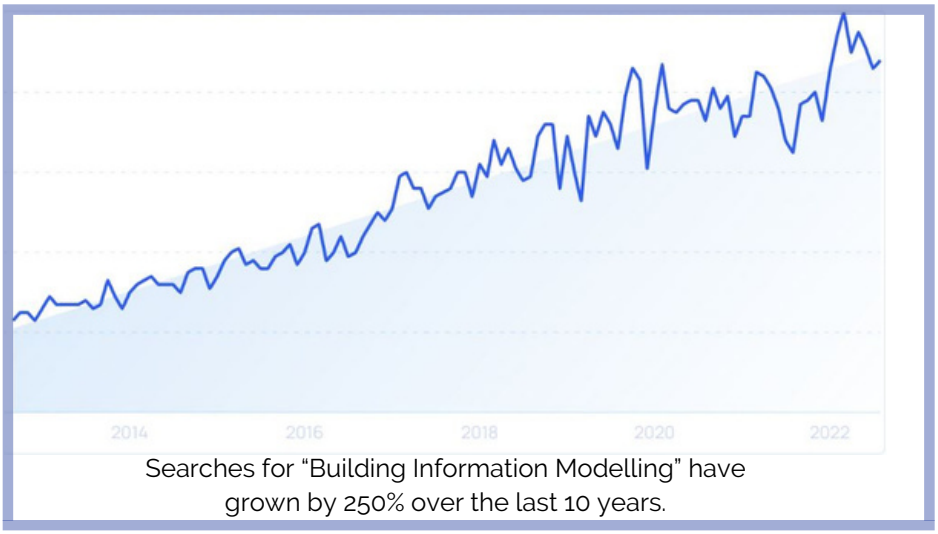
These virtual environments can be accessed via desktop, mobile devices, along with augmented and virtual reality hardware. And there's no wonder why this is catching on. It's estimated that reworks of faulty or incorrect builds account for nearly 30% of construction industry costs.





Searches over the last decade for virtual design and construction

Virtual design helps cut down on this by allowing builders to first build structures in a virtual environment. Building Information Modeling (BIM) is probably the most popular VDC tool. It allows architects, engineers, or anyone else to generate a virtual model of a physical building or structure.



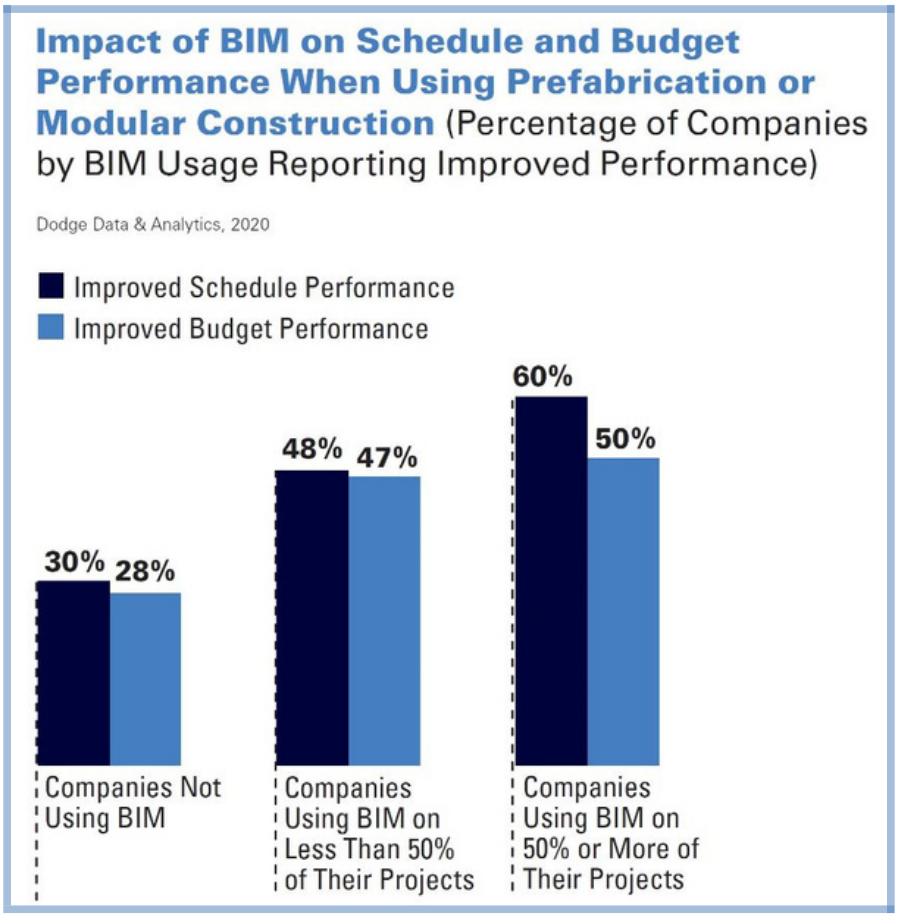
Searches for "Building Information Modelling" have grown by 250% over the last 10 years.

As of 2020, the BIM market was worth somewhere from $4.5 billion to $5.2 billion.
The construction industry took somewhat of a hit during the pandemic. But it is expected to rebound, with the BIM market growing at a CAGR of 14.5% over the next five years.

North America is expected to be the market leader over this time period, capturing over 30% of the market. McKinsey found that BIM technology has now achieved an adoption rate of about 60-70%.

However, this adoption has been relatively slow, taking about 35 years. The last decade, though, offers some hope. NBS's 2020 BIM Report found that 73% of its respondents were using BIM as of 2020.

Compare this to 2011, where almost half of all NBS respondents had never heard of BIM. Combined with modular construction and prefabrication, BIM is consistently helping construction firms maintain budgets and keep tight construction schedules.



Construction Management Software (CMS) is also now an important tool for many major construction companies.

A construction project is a very fragmented procedure. There are typically a variety of parties involved. And there are a lot of tasks happening at once. CMS helps construction managers by allowing them to store and access data, blueprints, and documents all in one place. And there are a lot of tasks happening at once. CMS helps construction managers by allowing them to store and access data, blueprints, and documents all in one place.

The global construction management software industry is currently estimated to be worth $1.4 billion. It is expected to grow to $3.2 billion by 2027 (a CAGR of 12.5%).

Autodesk is the largest player in the architecture and construction software market. The company brought in over $3.2 billion in 2020 revenue.

Its AutoCAD, BIM 360, and REVIT technology are basically the standard in virtual modeling. Its traditional AutoCAD software is used by 85% of the market. And it's estimated that the company captures about 31% of the overall market. Autodesk's software consistently ranks at the top of industry best lists.

2. Prefabrication And Modular Construction Change How Structures Are Built

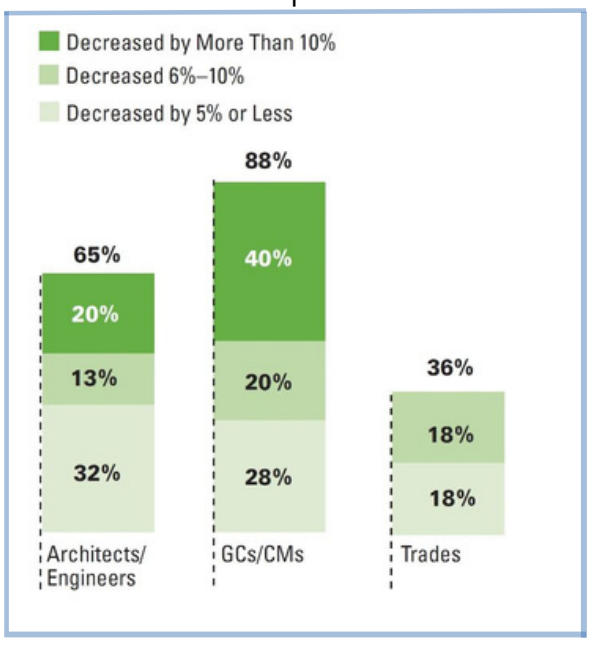
Modular construction typically involves constructing at least 60-90% of a building or other structure before bringing it to the construction site. Prefabrication, while technically part of modular construction, occurs when certain components of a structure are assembled or manufactured off-site. The prefabricated parts are then easily affixed to the building.

The global modular construction market was worth about $82.3 billion as of 2020. And it is expected to grow to $108.8 billion by 2025.

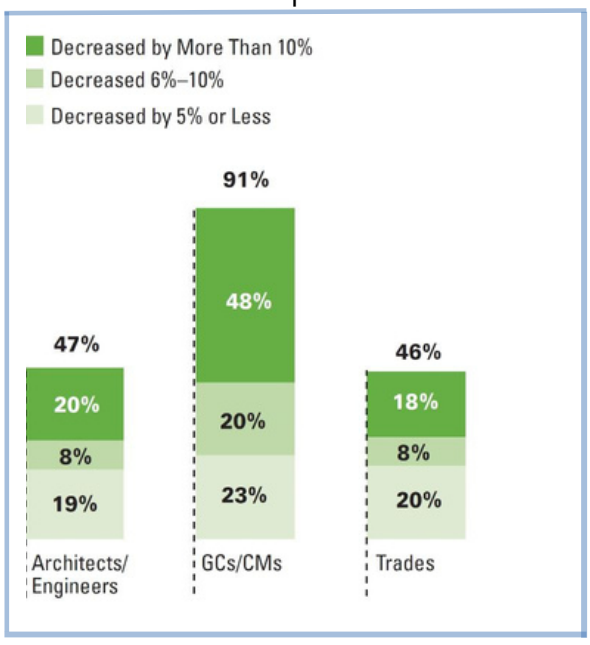
And while it has been relatively small compared to the entire construction market, the modular construction industry has experienced rapid growth in the past few years. McKinsey estimates that the North American permanent modular construction industry's share of new construction projects rose by 51% between 2015 and 2018. Over the same period, the industry's total revenue more than doubled.

Increasingly, general contractors (GC's), architects, and developers are finding that prefabrication and modular construction helps keep costs low, shortens the construction timeline, and reduces waste.

Impact of Modular Construction on Project Schedule Performance
Percentages reporting each of the three levels of improvement



Impact of Modular Construction on Project Budget Performance
Percentages reporting each of the three levels of improvement

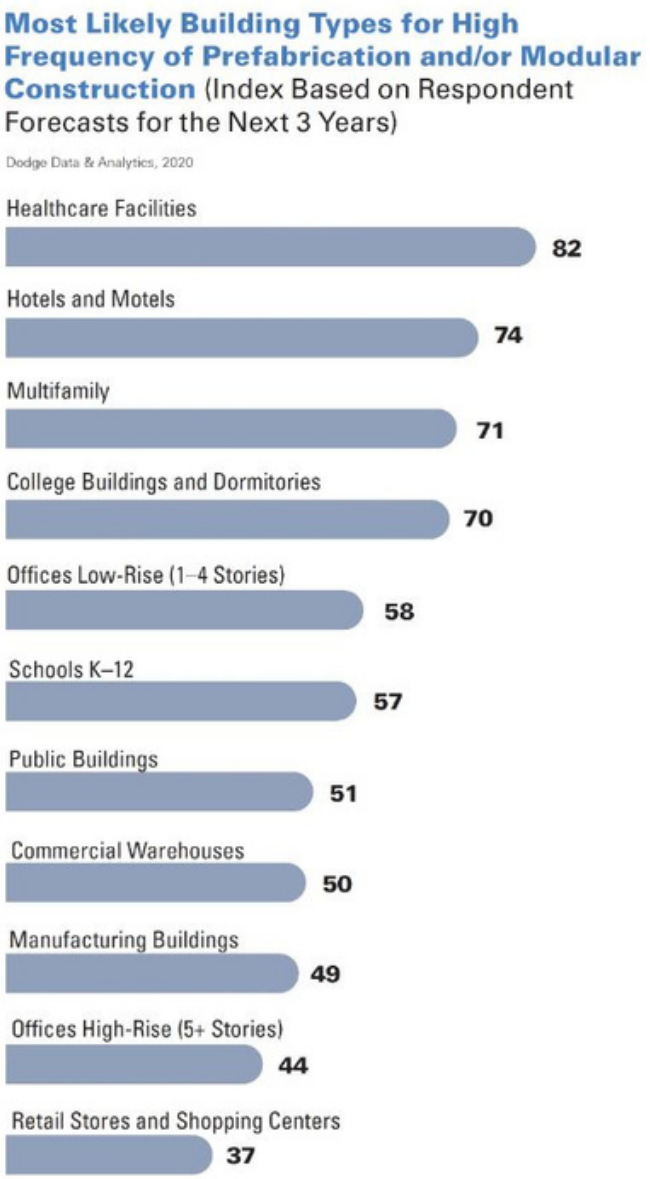


Because of this, roughly 90% of respondents to Dodge's 2020 Prefabrication and Modular Construction Report said that prefabrication and modular construction methods were more beneficial than traditional construction. Certain kinds of buildings do, however, lend themselves better to this kind of construction.

Dodge found that, overall, healthcare facilities are expected to benefit the most from modular construction and prefabrication over the next three years.

Hotels and motels, as well as multifamily residential structures, didn't trail far behind though. Between 2018 and 2020, hotels and motels have led the pack as major beneficiaries of modular construction.

According to Dodge, roughly 43% of architects and engineers and 29% of general contractors and construction managers said that hotels and motels were the fastest growing industry for modular construction (2018-2020). The two groups differ, however, on how they think 2021 to 2023 will go.



Over half of architects and engineers believe that multifamily residential buildings will be the fastest growing modular construction sector. But the other group disagrees. 41% of GC's and CM's believe that healthcare will make the most use of modular construction between 2021 and 2023. If you ask trade contractors (or subcontractors), they agree with the GC's and CM's.

56% of trade contractors think healthcare facilities will be the fastest growing market for modular construction. And as the modular construction market grows, it is attracting new entrants.

One of the most promising new startups is Katerra.

It is focused on completely modularizing the construction process. The company manufactures certain parts of a building (like a wall) in its facilities, allowing developers to assemble buildings on job sites. For now, Katerra is focused mainly on the residential real estate market.

Katerra has raised $1.6 billion in funding, including $865 million from Softbank in 2018. And although Katerra has had its recent problems, the company still generated about $2 billion in revenue in 2020.

3. Smart Cities Change The Way Construction Companies Operate

One of the biggest trends affecting the construction industry is the rise of smart cities. A smart city is a city that is basically fully integrated with the internet of things (IoT). The infrastructure and buildings all assist in collecting data to help everything run more efficiently.

It's estimated that the global smart city spend totaled $124 billion in 2020. That's an increase of almost 20% over 2019. IDC predicts that investments in smart cities will grow to $203 billion by 2024. Some estimates also indicate that the market will double again to over $676 billion by 2028.

As this concept matures, it will likely change the way most of the construction industry operates.

More and more construction industry participants will have to start using tech advancements like IoT in their building materials. A recent study shows that about 60% of U.S. building managers are familiar with IoT technology. And 43% expect IoT technologies to impact their business in the next few years.

The construction industry will have to adjust soon, as large corporations and cities are making agreements to construct smart cities within the next year. Toyota has announced a 2,000-person smart city outside of Tokyo. The company plans to test autonomous vehicles and "smart buildings" in an environment with actual citizens. Construction began in February of 2021.

4. Green Building Helps Tackle Environmental Issues

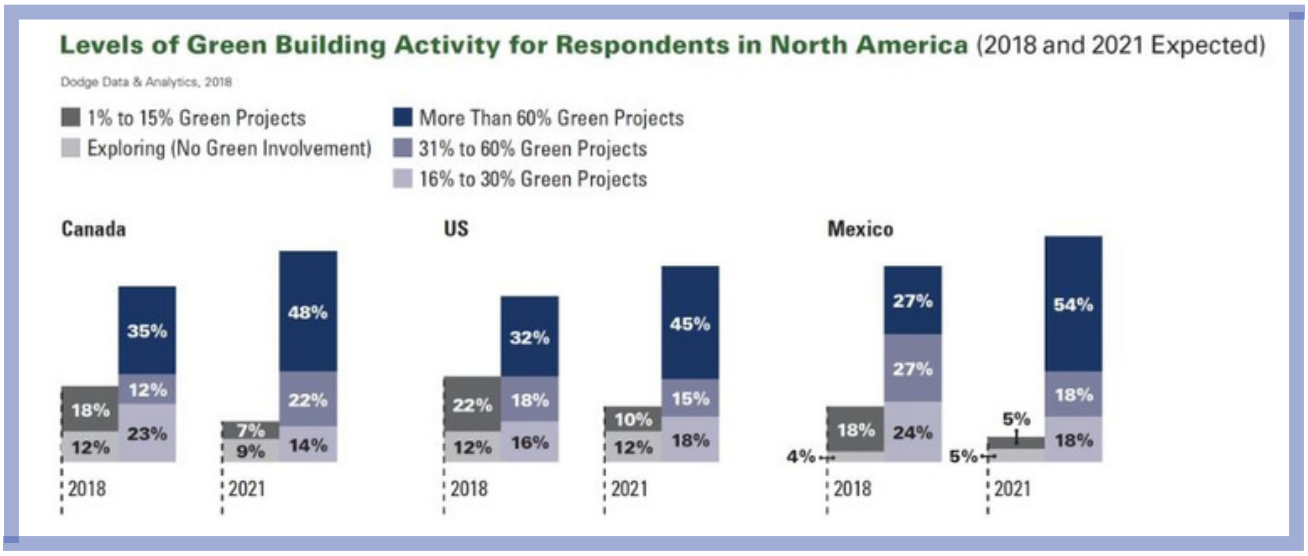
Green building involves building environmentally sustainable buildings using an environmentally sustainable construction and design process. As governments and regulatory bodies around the world focus on environmental factors in every industry, more construction and design firms are implementing green building methods.

According to Dodge's World Green Building Report, almost half of all construction and design respondents said they expected the majority of their projects to be green by the end of this year.

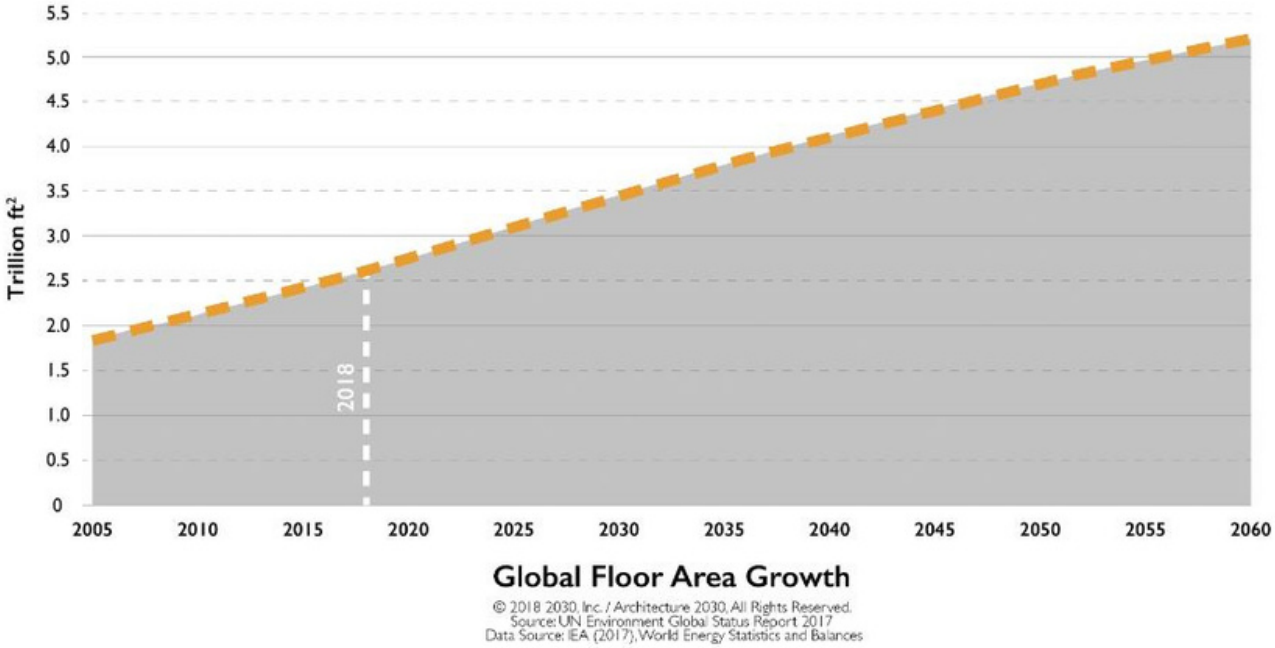
And a McKinsey study found that 90% of construction industry respondents believe that a shift towards environmental sustainability is imminent. As of 2018, Canada had the largest percentage of builders engaged in green building in North America. And the U.S. was a close second. Mexico is expected to be the leader in North America. Over half of their builders expect the majority of their buildings to be green.

The green building revolution is doing particularly well in the residential building market. Over one-third of single-family and multi-family builders build at least half of their projects using green building techniques.

Energy efficiency is widely regarded as the top practice of home builders in improving green home performance. In fact, 96% of green home builders build their homes to be energy efficient. This makes sense, considering building operations themselves account for the vast majority of greenhouse gas emissions in the construction and real estate sectors. Because of this, over 90% of single-family residential builders said they used some kind of energy efficiency practices in the construction of at least some of their buildings. 69% claim they use it in most of their buildings.



5. Living Building Materials Go Mainstream



One of the most radical new trends in the construction industry is the use of living building material. This part of the industry is still very young, but there are signs of increased adoption. When looked at from an environmental standpoint, the decision to switch to this kind of material is clear.

The entire construction supply chain accounts for 11% of global greenhouse gas emissions. And embodied carbon (carbon released in the construction process) accounts for close to 30% of greenhouse gas emissions in the construction and real estate sectors.

The number of new buildings being built also isn't expected to slow anytime soon. To accommodate growing populations, the global building stock is expected to double by 2060.

Cement is one of the main areas targeted by the living material sector. Cement production alone accounts for 8% of global CO2 emissions. And emissions will need to fall by 16% before 2030 for the sector to come in line with the Paris Agreement on climate change. According to the BBC, if the cement sector were a country, it would be the third-largest carbon emitter, behind China and the U.S.

That's why new products like self-replicating concrete and self-mending biocement are being developed. Biocement is grown using biological materials instead of created from non-renewable materials. And the process actually absorbs CO2 instead of emitting it.

Innovations like this can allow "manufacturers" to grow building materials that self-replicate, making it much easier and efficient to scale.

BioMason Inc. is one of the most interesting companies in this area. The company was founded in 2012, and it uses biological processes to grow biocement blocks. According to Crunchbase, bioMason has raised $94.8 million in venture funding so far. And it increased its headcount by 50% in 2020.

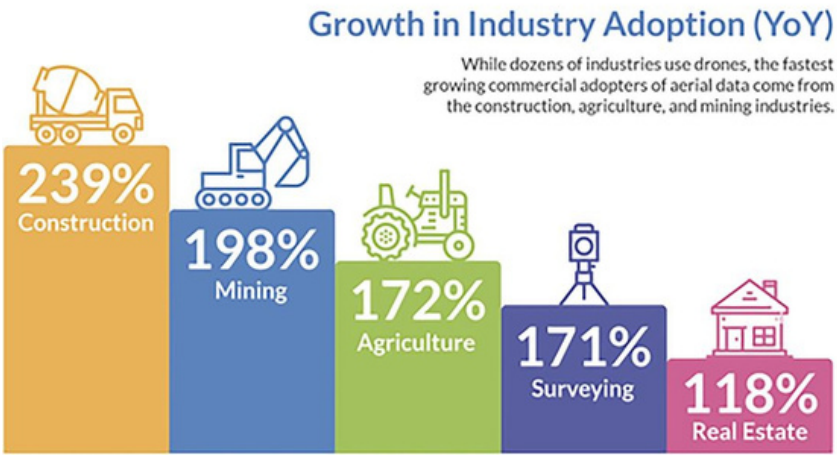
6. The Construction Industry Benefits Heavily From Drone Technology

Another way that the construction industry is becoming more efficient is through the use of drone technology.

Once thought of as novelty items, drones are now responsible for huge cost savings on major construction projects. It's estimated that drone usage has significantly cut down on the annual $160 billion in waste that occurs on construction sites.

In fact, using drones to measure stockpiles of building materials in real-time has resulted in a 61% increase in measurement accuracy.

Many are hoping drones will significantly reduce construction worker injuries and deaths. In the U.S., 20% of workplace deaths occur in the construction industry – an industry that only makes up 6% of the U.S. labor force. By using drones, construction companies are able to survey and inspect various locations without putting any actual humans in harm's way.



As a result of drone technology, the construction industry has seen a 55% increase in safety standards. In 2018, DroneDeploy – a drone cloud computing company – completed a study that found that the construction industry was adopting drone technology faster than anyone else.

7. Tech Solutions Improve Safety

Concerns about construction site safety are on the rise.

From 2011 to 2019, injuries from falls increased 41% and the number of nonfatal injuries rose 8%. Sadly, more than 365 people in the construction industry died from falls, slips, or trips in 2020.

Statistics like this are leading to a call for improved safety equipment using tech. Hard hats have been one of the most prevalent pieces of safety equipment at construction sites for the past several decades. However, there's now a "helmet revolution" taking place in the industry.

Safety helmets, like the ones you see people wearing while rock climbing, are becoming popular for a number of reasons. For example, because they have a chin strap, they stay on even if the worker falls. They also provide a greater field of vision and a more compact, ergonomic fit for the user.

Many of the latest developments in safety helmets focus on reducing impact in order to prevent injuries to the head and neck. One helmet from HexArmor features a Kinetix suspension system that's able to absorb and direct impact out and away from the neck and spinal cord. When compared to other helmets, this system reduces 40% more of the impact force.

There are even some safety helmets, like those offered by twICEme technology, that integrate the user's medical information, emergency contact information, and coordinates directly into the helmet.

SMART PPE DEVICE

This compact, waterproof device records biometric data from a flat surface in a highly effective, unobtrusive way.

MOBILE APP

This personalized application empowers the individual worker to self-monitor key physiological indicators, resulting in increased worker awareness and adoption.

8. Construction Firms Face Major Labor Shortage

The construction industry has been facing a labor shortage for the past several years. But in 2022, it has reached "crisis level."

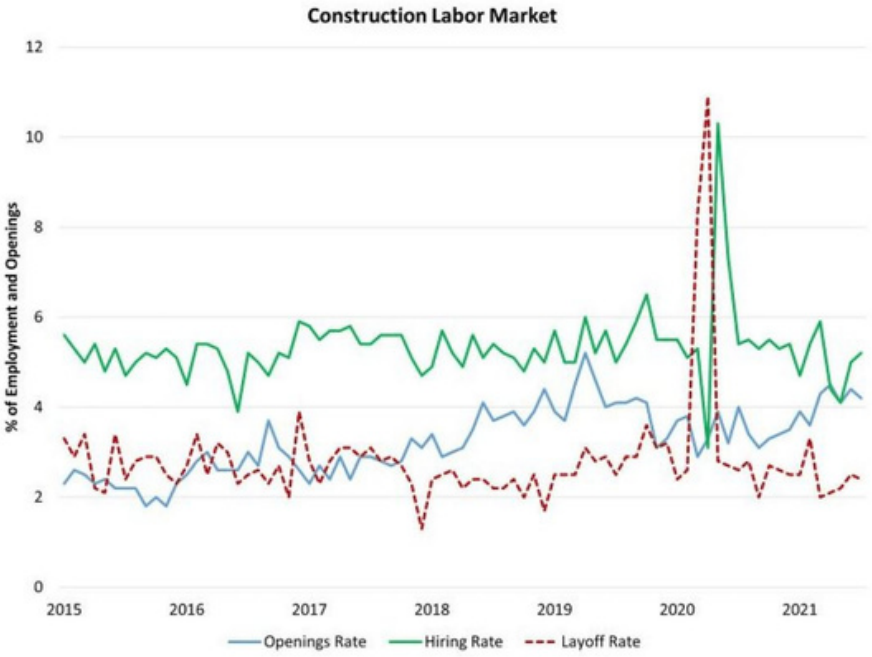
That's according to the CEO of the Home Builders Institute.

In April 2022, there were 494k jobs open in the construction industry. That's a 40% increase over April 2021 and the largest total openings since they began tracking the data in 2000. In May 2022, there were fewer jobs open, only 466k. However, that still represented a 39% year-over-year jump and was the largest total ever for May.

This crisis is expected to get even worse with a portion of the $1.2 trillion from the recent Infrastructure Investment and Jobs Act starting to flow into the industry.

The Association of Builders and Contractors estimates the industry will need to hire 650k additional workers on top of the normal hiring pace in 2022 in order to keep up with demand. They go on to say that these numbers won't be much lower in 2023. During that year, the industry will need 590k new workers on top of the normal hiring rate.

The shortage of workers is impacting project timelines and completion rates. In a recent survey, 89% of construction firms reported having difficulty in filling positions and 61% said they are experiencing project delays due to the labor shortage. The Home Builders Institute says the lack of construction workers is a main factor in the shortage of housing inventory and affordability. Their data shows that nearly 42% of the construction labor force works in residential construction.



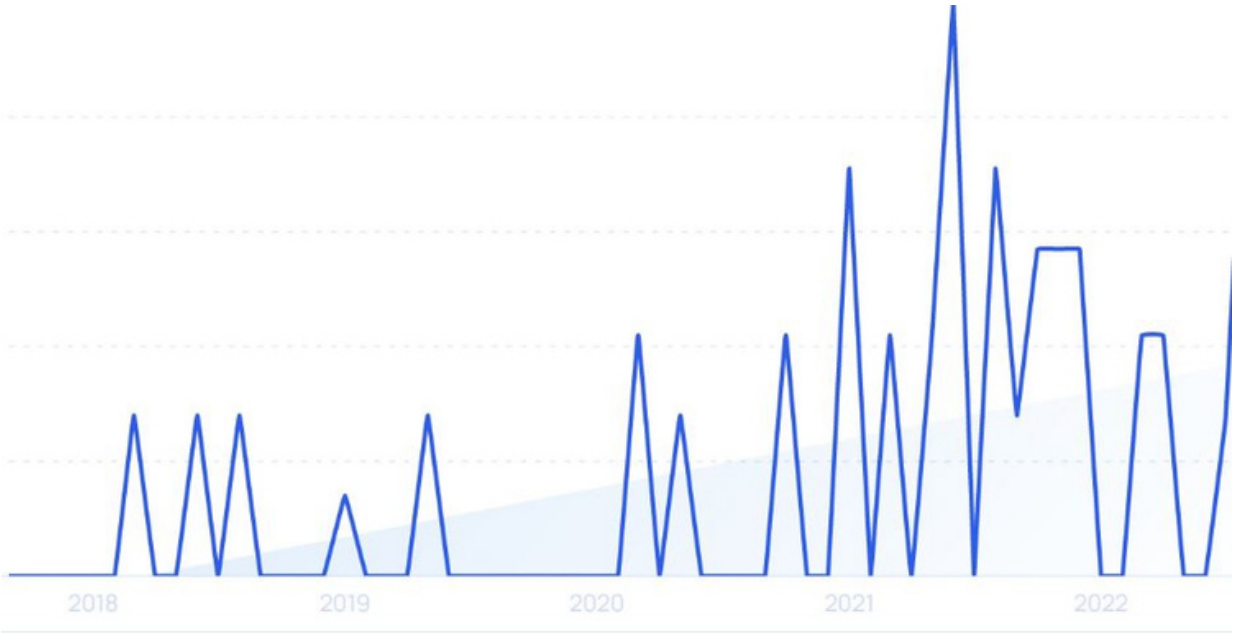
One industry analyst says there are 25% more unfilled positions than hired. He expects that "jobs that were predicted to cost $500M end up costing $600M, because you're going to need to pay people more."

In addition to higher salaries, the industry is trying a variety of strategies in order to recruit and retain workers.

Some are launching programs to reach kids as early as grade school and get them interested in construction jobs. Other firms are focused on diversity in hiring, attracting interest through social media, and offering retention bonuses.

One bright spot is enrollment in construction industry trades courses at community colleges. Enrollment in these courses was up 5% between 2019 and 2021.

9. Material Costs Soar As Shortages Remain



Search volume for "construction material shortage" is up 600% in the past five years.

For many construction firms, certain materials are hard to come by. And, even if they can source the materials, the cost is soaring.

More than 90% of builders say they're facing material shortages. In that survey, builders were presented a list of 24 materials and asked to specify which shortages they were experiencing. More than 70% of builders marked half of the items.

In June 2022, the Associated General Contractors of America released data that showed prices for construction materials used in nonresidential projects were up nearly 17% since June 2021. Construction inputs with the highest price increases were diesel fuel (doubled since June 2021), asphalt roofing products (up 22% YOY), and plastic construction products (up 27% YOY).

The demand and cost for aluminum are up considerably, too. In 2021, demand for the material jumped 7.7%. In the first quarter of 2022, demand was up another 5.3%. Aluminum prices are the highest they've ever been. Industry experts are predicting an average price-per-ton of $3,450 in 2022.

Steel is another material that's scarce and expensive. The Bureau of Labor Statistics' Producer Price Index showed the price of steel mill products increased 123% year-over-year in August 2021. During the last decade, the average price for hot-rolled coil steel was about $400 per metric ton. An executive from Tata Steel says that steel will cost $600 per metric ton in the coming years. More than one-third of contractors are seeing a steel shortage.

These shortages and price hikes mean that many construction firms are worried about their bottom line. Input costs have increased much more quickly than the average prices construction firms are bidding on projects. In December 2021, the average input cost was up nearly 20% while the average bid price had only increased 12.5%.

10. 3D Printing Use Increases

The construction 3D printing market is growing at an incredible rate. Reports show a CAGR of 99% through 2030.This type of 3D printing can use a variety of materials: concrete, geopolymers, fiber, sand, and others. Some innovators have even used biodegradable materials, like mud, soil, and straw in 3D-printed houses.

In most instances, only the frame and walls of a building can be manufactured with 3D printing. However, the technology is advancing so fast that plumbing and electrical fixtures can also be integrated into the building via 3D printing.

The construction industry stands to reap several benefits from 3D printing. The first benefit is time-savings. Technology works faster than we do and California-based Mighty Buildings has the proof. The company built its Mighty Duo B, a 700-square-foot 3D prefabricated home, in just eight weeks. And, it only cost $314 per square foot. The company reports that its projects reduce construction timelines by up to 75%.

The lower price is another notable feature of 3D printing in construction. Far less manpower and time is needed to build these structures, resulting in less wages paid. One commercial building was built in Dubai using 50% less labor than a typical building. Black Buffalo 3D, the provider of a large-scale 3D construction printer, says that using its machine to build a 1,000 square-foot-space costs 40% less than traditional wooden frames that are built on-site.

ICON, a company that constructs homes using 3D printing, built a 650-square-foot home in 24 hours at a cost of $10,000. They say they'll be able to get the price down to just $4,000 in the future.

Because of the cost-savings of 3D printing construction, Habitat for Humanity has been watching the trend closely. The organization built its first 3D-printed house in Virginia in late 2021. They have a second 3D-printed home in Arizona. The organization says nearly 80% of the 2,400-square-foot-home is made with 3D technology.

11. Construction Robotics And Automation Enhance Productivity

Reduced waste, improved safety, enhanced productivity, closing the workforce gap—early adopters in the construction industry are achieving all of these goals by employing robotics and other automation strategies.

The market for construction robots is expected to reach $359 million by 2031. A survey commissioned last year by ABB showed that more than half of construction companies are currently using robots and 81% expect to introduce robots within the next 10 years.

Construction firms are deploying robots to complete a variety of tasks on-site and off-site. The TyBOT, a device that ties rebar, is one of the most popular construction robots. Tying rebar without a robot requires workers to make repeated hand and arm twisting movements while stooping or bending at the waist. It's literally back-breaking work. TyBOT takes less than four hours to set up and ties rebar at a rate of 1,100 intersections per hour. That provides up to a 40% productivity boost compared to human labor. And, it reduces the occurrences of worksite injuries.

In 2022 TyBOT's creator, Advanced Construction Robotics, plans to release IronBot. This robot self-places up to 5,000-pound bundles of rebar. When used alongside TyBOT, the robots can improve productivity by at least 250%.

Another firm seeing success with construction automation and robots is Dusty Robotics. The company's FieldPrinter can autonomously mark layouts on the concrete slab of construction sites. The process usually involves workers manually measuring and using a chalk line to show where features should be in an interior construction site. The automated process is up to 10x faster than the traditional method.

It fully integrates with CAD and BIM models to mark specifications for all trades in a single pass. Only one operator and a tablet interface is required for operation. In June 2021, the company raised $16.5 million in a Series A funding round and followed that up with a $45-million Series B in May 2022, bringing the company up to a $250-million valuation.

Autonomous construction vehicles represent an even larger market than construction robots. In 2021, the market was valued at $10 billion and is expected to grow at a CAGR of nearly 12% through 2026.

Built Robotics, founded in 2016, develops software and hardware to automate construction equipment. The company's Exosystem installs on late-model excavators in just minutes. The vehicle is then geofenced in a specific area and monitors itself with a 360-degree camera. One trained operator can start the machine and walk away. The system has a base cost of $3,000 per machine per month.

Built Robotics recently raised $64 million in a Series C funding round, bringing their total funding to $112 million.

That's about it for our list of important construction industry trends for the next few years.

Overall, environmental sustainability and software adoption seems to be the overriding themes that tie many of these trends together. Interestingly, these themes also tend to result on cost savings, which should help speed up the rate of adoption.

25th Annual

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Categories:

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Innovative Ideas: Unique and imaginative ways to celebrate

NAWIC
The National Association of Women in Construction

Many Paths ONE MISSION

THE GREAT BREAKUP

Study shows that women leaders are leaving jobs in unprecedented numbers.

Women in leadership positions are asking for more from their companies and leaving if they do not get it, according to an annual study by McKinsey & Company and LeanIn. The Women in Workplace 2022 study reveals a look into corporate America and how women, especially women of color, are still fighting to gain equality with men in leadership positions.

Over two-thirds of women under 30 in corporate America reported having ambitions to progress to leadership positions; but, with women in the workforce facing major obstacles, companies are at-risk of losing young women as well.

Barriers to advancement

For every 100 men promoted into a manager role, only 87 women are promoted. Additionally, for every 100 men entering manager roles from entry-level roles, only 82 women of color are promoted, the study says. This is the first, and sometimes biggest, barrier that keeps women from advancing in their careers.

"It is well past time that companies realize the value women bring to the workplace and start recognizing and awarding them for their hard work," NAWIC Executive Director Crissy Ingram said. "A person's gender should never be a barrier to upward mobility in their career."

Additionally, the study showed that women are more likely to face microaggressions and implications about their qualifications and skills from their colleagues. In fact, women are twice as likely as men to be mistaken for someone more junior and 37% of women leaders report that credit was given to someone else for their idea.

Women in the study also reported characteristics, such as their sex and being a parent, have hindered their career advancement.

Too much work, too little support

Women leaders are twice as likely to spend substantial time on diversity, equity, and inclusion (DE&I) work than their male counterparts, the study says, while 40% of women leaders say that they are not evaluated on their DE&I work.

Meanwhile, women in entry-level positions are twice as likely as men to be doing a majority of the household work; in leadership positions, this statistic nearly doubles. These factors could be part of the reason that 43% of women leaders report struggling with burnout, compared to the 31% of men in leadership roles.

"Burnout is very real, especially for those who work and are full-time homemakers," Ingram said. "Ensuring that they have the support and tools they need is key in keeping women on staff, as well as in leadership positions."

Women are 2x as likely to spend significant time on DE&I work than men	**Women are 2x as likely as men to be doing a majority of their household work**	40% of women leaders are not evaluated on their DE&I work

Workplace culture matters

Women leaders are 1.5x as likely as men leaders to leave a job because of the desire to work for a company that prioritizes DE&I, according to the study. Additionally, 49% of women leaders say that flexibility is one of the top three things they consider when they are looking at a position or considering leaving a company, versus 34% of men leaders who say flexibility is important to them.

"Flexibility and inclusivity are vital to the success of companies, both for their profitability and the well-being of their employees," Ingram said. "Unless companies are willing to take proactive steps to ensure that employees are happy and feel included, employees, especially women leaders, will continue to leave, increasing the labor shortage even more."

Moving Forward

The study digs into many avenues, from specific anecdotal experiences to the racial biases women leaders or women trying to break into leadership often face. Ultimately, the study finds that unless companies focus on hiring, retaining and supporting women leaders, women will continue to leave at unprecedented rates and women going into entry-level jobs are less likely to work at those companies.

"The construction industry in particular is facing a huge gap in workers, especially as many workers start to retire," Ingram said. "If we do not start listening and working toward equity and better workplace cultures, the construction industry may be in for a very challenging time."

Read more about the findings here.

Sponsor Women in Construction Week

WIC Week 2023 marks the event's 25th year, and NAWIC intends to make the celebrations bigger than ever! In order to do so, we need your support.

Why WIC Week?

- Raises awareness about WIC & opportunities in the industry
- Emphasizes the growing role of women in the industry
- Gives back to communities

www.nawic.org

Support women in construction

Your sponsorship will help us highlight women across the country as a visible component of the construction industry.

Highlight your company

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Celebrate WIC Week

Celebrate with NAWIC National's virtual events, get exclusive access to member-only WIC Week resources, & more!

PRE-ORDERS

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Now Trending

I typically groan, a little, when I hear that something is now trending. Often it is related to some item in social media. What is meant, I believe, is that we have a new fad to think about, a shiny object that has caught someone's eye, or something fleeting to be replaced in short order. I get it. We all want a better mousetrap or tool or process to make our lives easier. I think the point that can easily be missed is the distinction between continuous improvement and an idea that will go the way of the Hula Hoop and Pet Rock.

For me, the idea of a trend can be identified and measured. As an engineer, Project Manager, and coach, it is important to me to understand the progress over time. To be able to graph the progress. See and recognize what has been impactful. I can't help it, I'm just hard wired that way. Equally important is the idea that trends do not necessarily continue in perpetuity. It is much harder for a large company to increase revenues, by say 20% per year, than for an emerging company. Even if the sales can be made to hit the growth goal, are the resources available to make it a reality. It's just the math and it's hard to overcome.

So, what are some trends that we should pay attention to within our industry?

The Work Just Keeps on Coming

It is no secret that there is more work on the street right now than can be reasonably staffed. We see it all the time in the media. Worker shortages, challenges attracting younger team members, loss of institutional knowledge, shorter tenures, and the list can go on. Is this a new problem? Probably not though I suspect we hit a tipping point and it is now gone from annoying to problematic. As this trend of a robust pipeline of projects continues, we will need to think about some ways to meet the demand. In the

same way that it is easier to win a project with an existing client, it is more cost effective to retain employees than to try and replace them. Meet their needs (not the laundry list of wants) as best you can. They will recognize and appreciate the effort and likely stick around longer.

Innovation Can Help

Innovation and implementation of technology is not a new concept. As an industry we have always incorporated innovation. I think of the iconic photo of ironworkers eating lunch on a girder high up in the air. Not a hard hat, harness, or pair of safety glasses to be found. We would never consider that as acceptable in 2022. The introduction of new measures and approaches through technology allow us to work quicker, safer, and more accurately. We just have to be willing to get past the "we've always done it that way" mentality. Those companies that can innovate and implement will find themselves leading the pack. Change or technology for the sake of change is not the aim if it gets you no closer to your goal. Resist the urge to buy the shiny new application that comes with a slick presentation and no discernable track record.

Women will help lead the way

We are all aware of the historical trend in employment of women in the construction industry. 10% though recent reporting notches it at nearly 11% and breaking the 1 million barrier. Did you know that the number of women-owned construction companies nearly doubled from 2007 to 2018? Or that 30% of construction firms promoted a woman to a senior position in 2018 (and hopefully that is increasing since)? The work to foster and support that trend is being taken up by so many organizations, like NAWIC, through education, training, outreach, and awareness. There is still more that we can all do personally to ensure the trend continues up and to the right (in my virtual graph).

Personal Balance and Satisfaction

I would imagine this trendline is shorter than the others though no less important. The more recent focus on mental health, work-life balance, employee engagement should be encouraged. I can accept that some might push back on the idea that these are newer concepts. Good companies have always looked out for their team members. There are also real benefits to bringing these ideas out of the shadows and into the public square. In my 30-plus years working in and around the industry, I can cite few examples of managers or supervisors that ever checked in to see how I was doing – outside of task progress. Were

they friends? Absolutely. The language and awareness of the impact and importance of those conversations was absent. Anxiety, fear, depression, burnout, or exhaustion (there are plenty more) should not be words to be feared and avoided. If you sense there might be a challenge, ask.

Trends are a tricky concept. It can be hard to pinpoint when a trend is taking hold or whether it will stand the test of time. The stock market, if you listen to the experts, returns about 8% a year from the creation of the exchange. That is the overall trend. Some years are way above and others way below. The message is: don't panic. Stick with the solid ideas and leave the fads to social media.

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MRiegel@AECBusinessStrategies.com.

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