



2018-2019 Vertical Market Series

Construction



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Preface

Purpose of This Study

The Equipment Leasing & Finance Foundation commissioned this forward-looking report on the U.S. construction sector. ORC International was selected to conduct the research. This, the first of these reports, provides an outlook on U.S. residential and commercial construction, sector confidence and anticipated spending, and key developments and trends impacting this sector over the next 1-2 years.

In preparing this report, ORC International utilized its pre-existing expertise, coupled with inputs from a number of outside industry experts and consultants, in analyzing and forecasting U.S. construction trends. In addition, broad knowledge of the U.S. macroeconomic environment and of the construction sector provided a foundation for the report.

Primary and Secondary Information Sources

Information used in this outlook comes from several sources:

- Information provided by the American Institute of Architects, the Associated General Contractors of America, and consultancies and industry trade groups including ConstructConnect, Dodge Construction & Analytics, *ConstructionDive.com*, *Construction-Today.com*, *Engineering News-Record*, etc.
- Various industry publications including Wells Fargo Equipment Finance's *2018 Construction Industry Forecast*, the *2018 Construction Forecast Report* from Oldcastle Building Solutions, and the most recent *Consensus Construction Forecast* from the AIA.
- Reports and analysis from media sources
- Interviews with ELFA members

Introduction

2017 saw construction spending hit an all-time high in the United States and the consensus from a number of industry experts and consultants is that the momentum will carry through in 2018.

However, ever since the construction industry began recovering from the Great Recession, it has wrestled with issues around labor shortages, and that reality is expected to continue throughout 2018.

Given the recent reduction in the corporate tax rate, a key development that remains to be seen is if construction firms will invest savings into creating additional training programs to facilitate more workers entering the industry or by increasing wages to attract further workers.

However, one recent potentially disruptive turn of events has been the Trump Administration's steel and aluminum tariff decision, prompting serious concern among some construction and heavy equipment associations. These associations, and others in the construction equipment space, concede that without question, the price of steel and aluminum products will go up, so profit margins will be squeezed. In addition, project costs will rise as rebar, and steel beams for bridges or multistory structures become more expensive. And steel and aluminum components used by heavy equipment manufacturers will see prices increases, so machines an aggregate will cost more to produce, a cost these manufacturers may pass along to customers. Some manufacturers have even expressed moves to impose surcharges on new equipment to offset costs incurred from the tariffs.¹

The Associated Equipment Manufacturers certainly was not pleased at news of the tariffs, stating:

“The equipment manufacturing industry is profoundly disappointed at President Trump's actions today to advance import tariffs on steel and aluminum,” said Dennis Slater, AEM president. “These ‘Trump Tariffs’ will put U.S. equipment manufacturers at a competitive disadvantage, risk undoing the strides our economy has made due to tax reform, and ultimately pose a threat to American workers’ jobs. President Trump should back away from these tariffs and redouble his efforts instead on policies that will create manufacturing jobs — not put them at risk.”

Stephen E. Sandherr, CEO of Associated General Contractors of America, was equally vehement in denouncing the tariffs.

“These new tariffs will cause significant harm to the nation's construction industry, put tens of thousands of high-paying construction jobs at risk, undermine the President's proposed infrastructure initiative and potentially dampen demand for new construction projects for years to come,” he said. “That is because the newly-imposed tariffs will lead to increases in what construction firms are forced to pay for the many steel and aluminum products that go into a typical construction project.”²

And moving beyond the impact of tariffs, the reality is also that with the construction industry as a whole still generally characterized as underinvesting in and being slow to adopt technology, many firms are reaping the benefits from emerging technologies, such as robots, drones, and autonomous construction equipment. These advancements in technology will continue to help contractors and builders solve some of the industry's major problems: safety; productivity; and labor shortages.

New technologies are helping reduce the number of workers being placed in dangerous conditions. For example, drones are increasingly conducting site surveys and inspecting bridges. Autonomous equipment is being used for earthmoving and site work operations. And robots will be leveraged in the years ahead for greater handling of repetitive tasks such as bricklaying or rebar tying.

It is imperative that contractors and builders keep abreast of the latest construction industry trends and developments to stay ahead of their competition. As such, this report is geared toward helping the reader recognize and understand several key trends that could affect how they conduct business over the next couple of years.

Macroeconomic Environment

Confidence Levels Up Across U.S. Consumer and Business Segments

Consumer sentiment—as measured by the University of Michigan consumer sentiment index—was up in the latter half of 2017, with figures in the fourth quarter at their highest levels in nearly two decades. In addition, measurements by the Conference Board’s CEO business confidence survey indicated that business confidence levels in 2017 were at their highest point since before the last recession. These indicators suggest broad confidence in economic conditions across both households and businesses, and a growing willingness to spend and invest.

The chief driver of the boost in recent U.S. consumer confidence has been an improving labor force, explained The Conference Board’s director of economic indicators, Lynn Franco. “Despite the recent stock market volatility, consumers expressed greater optimism about short-term prospects for business and labor market conditions, as well as their financial prospects. Overall, consumers remain quite confident that the economy will continue expanding at a strong pace in the months ahead.”³

U.S. Small Business Default Rates – Construction Sector

PayNet’s Small Business Default Index (SBDFI) measures the percentage of loans and leases to U.S. small businesses that have defaulted based on the largest commercial and industrial lenders in PayNet’s U.S. database. Looking at this information, small business entities in the construction sector are forecast to have a default rate of 2.5% in 2018 and 2.6% in 2019, near the middle of the pack compared to other industry sectors over this time period.

Construction Industry Confidence & Spending Outlook

Looking specifically at the construction industry in the U.S., a 2018 *Construction Industry Forecast* from Wells Fargo Equipment Finance highlighted increased confidence across the construction industry and positive expectations towards net profits and equipment sales and rentals.⁶

U.S. Small Business Default Rates

Historical and AbsolutePD® Forecast Default Rates				
Industry Segment	Actual Historical Default Rates ⁽¹⁾		Forecast Default Rates ⁽²⁾	
	2016	2017	2018	2019
Transportation	4.2%	4.0%	3.4%	3.4%
Information	2.2%	3.1%	3.1%	2.9%
Mining	4.9%	2.7%	1.9%	1.9%
Accommodation and Food	1.9%	2.3%	2.7%	2.9%
Agriculture	2.1%	2.1%	1.6%	1.6%
Construction	2.1%	2.1%	2.5%	2.6%
Health Care	1.8%	1.9%	2.1%	2.1%
Administrative Services	1.8%	1.9%	2.2%	2.1%
Manufacturing	1.8%	1.8%	1.8%	1.8%
Retail	1.9%	1.8%	2.0%	2.2%
Professional Services	2.1%	1.7%	1.8%	1.7%
Finance	1.4%	1.6%	1.6%	1.6%
Other Services	1.5%	1.6%	1.7%	1.8%
Real Estate	1.5%	1.5%	1.8%	1.9%
Wholesale	1.3%	1.5%	1.6%	1.7%
Entertainment	1.1%	1.1%	1.4%	1.6%
Education	0.9%	1.0%	1.6%	1.6%
Public Administration	0.9%	0.7%	1.8%	2.0%
All Industries	1.8%	1.8%	2.0%	2.0%

Source:

(1) PayNet Small Business Default Index

(2) PayNet AbsolutePD®

\$1.0mm or Less in Total Lease/Loan Exposure

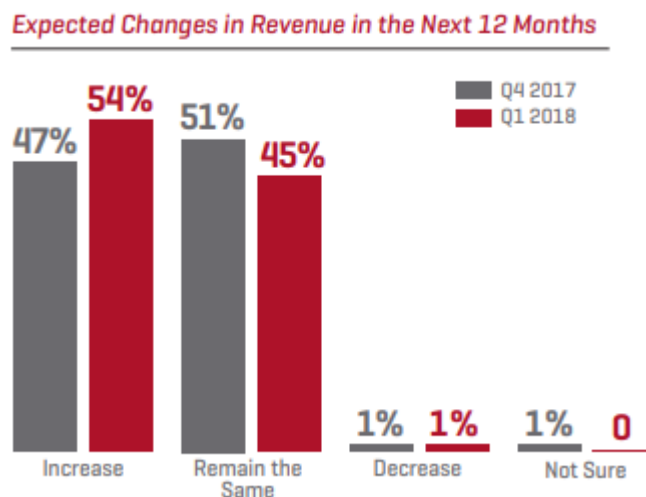
Source: PayNet’s U.S. Small Business Credit Outlook (March 2018)⁵

Analysis from the publication stated:

“While most distributors and contractors maintain a positive outlook on construction activity and industry expansion, looking out two years, fewer predict the pace of growth will continue at this level. That doesn’t mean the majority feel the industry won’t expand. 73% of contractors said that the most likely scenario in the next two years is expansion, while those who said that the current level of activity will remain static increased to 19%. Few in the industry predict that a contraction is likely in the same time span, with only 9% of contractors and 9% of distributors saying that activity level will be less.”

And recent analysis by the U.S. Chamber of Commerce concluded that in the first quarter of 2018 a higher percentage of U.S. contractors (54%) expected to see their revenues increase than those who expected increases in the fourth quarter (47%), third quarter (41%) or second quarter (40%) of 2017, pointing to contractor revenue expectations as contributing to ongoing confidence in the market.⁷

The foreseeable future does appear bright for general contractors working in commercial and residential construction, with building construction set to boom going into the summer of 2018. Still, pressure on the bottom line could materialize as developers will be squeezing margins until domestic steel can meet demand following newly imposed steel and aluminum tariffs in the U.S. There is little doubt a bump in materials costs resulting from imposed trade tariffs will have construction companies and developers realizing narrowing margins.⁸



For 2018, U.S. construction industry experts predict growth of 5% overall. Geographically in 2018, the South and the West regions will likely be the key areas of growth with Texas, Nevada, and New Mexico leading. On top of that, 36 of the top 50 MSAs in the United States will experience expansion in 2018. The three largest MSAs, in terms of construction starts spend, are forecasted to be: New York City (-2%), Dallas (10%), and Houston (14%). Overall construction costs are forecasted for ongoing increase in 2018 in the 2-3% range, led by 3-4% higher construction labor costs.⁹

	Year	Consensus	
		2017	2018
Construction Forecast by Segment	Total	4%	5%
	Residential	6%	6%
	Single-family	9%	9%
	Multi-family	1%	-1%
	Non-Residential	2%	4%
	Commercial	1%	2%
	Hotels	8%	-2%
	Office	5%	6%
	Retail	-8%	1%
	Education	5%	6%
	Healthcare	1%	5%
	Public Buildings	2%	6%
	Industrial	0%	4%
	Other Non-Residential	2%	0%
	Non-Building	4%	4%
	Roads and Bridges	5%	6%
	Infrastructure	3%	3%

Source: 2018 Construction Forecast – Oldcastle Building Solutions¹⁰

was signed, and then again in January 2018, when mortgage rates moved higher.¹²

One development that appears to be moving in a positive direction when it comes to residential construction is the a rising number of Millennials who will be aging into the peak ages for becoming first-time owners in 2018 and 2019.¹³ While it is still unclear exactly the extent to which Millennials will remain in housing located in the urban core, recent research from the National Association of Home Builders (NAHB) has found that a majority of Millennials want a single-family home with a yard. The challenge for home builders will be to create housing options that appeal to Millennial buyers but can still be affordable to first-time buyers. Indeed, 21% of Millennials surveyed by the NAHB explained that they haven't yet purchased a home simply because they are not in a place to afford one yet.¹⁴

Non-Residential Construction Outlook

Construction spending and starts are expected to remain strong in 2018, albeit a bit more restrained than in 2017. According to analysis from ConstructConnect, the Associated General Contractors of America (AGC) and the American Institute of Architects (AIA), construction starts are forecasted for 2018 at a 4.8% increase to \$773.1 billion. Commercial construction (offices, parking garages, and transportation terminals) is expected to have a 12.4% increase in starts in 2018 with conservative growth out through 2021. Industrial (including manufacturing facilities and warehouses) is expected to see a 5.6% decrease in starts in 2018 after seeing a 22.8% increase in 2017. Retail construction starts are expected to decline another 2.8% in 2018 after experiencing a 16.5% drop in 2017.¹⁵

Residential Construction Outlook

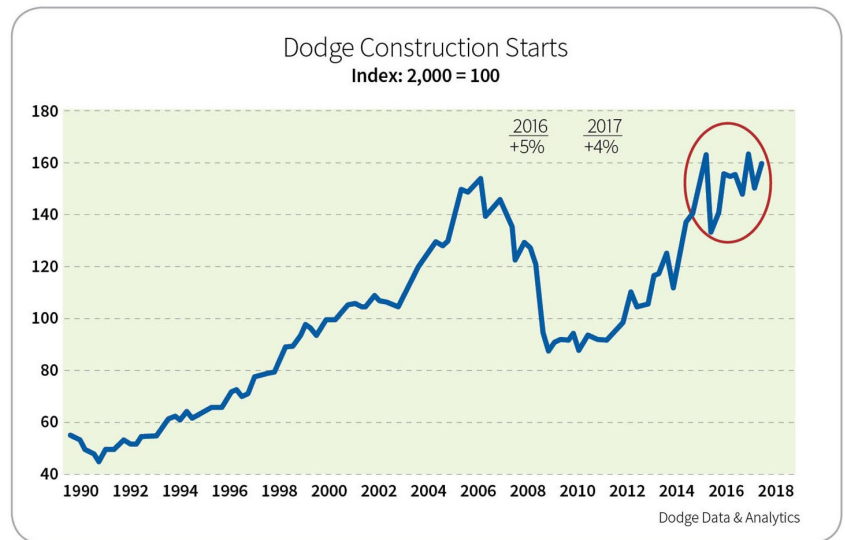
Single-family construction spending in the U.S. increased 9% through the first ten months of 2017, about the same growth rate as in 2016. Residential construction, especially single-family construction, should remain strong in 2018. Part of this will be contingent on whether Millennials decide to start making the move from living in downtown metropolitan areas to becoming homeowners.

But multifamily construction slipped to a 4% growth rate. However, in 2018, there is expected to be much rebuilding and renovations in areas of Texas, Florida, and California devastated by hurricanes, flooding, and wildfires. Meanwhile, multifamily building may dip after six years of generally torrid growth.¹¹

Higher mortgage rates, combined with the loss of homeowner tax breaks in some of the nation's most expensive markets, are now working to erode consumer buying power. Residential home sales fell in December 2017, when the new tax law

Anticipated growth is also expected around stadiums and arenas with new NFL stadiums planned in Los Angeles and Las Vegas, as well as the expansion of Major League Soccer in Miami and other cities in the coming years.¹⁶

On the other hand, lodging construction, including hotels and motels, is expected to be down in 2018 after experiencing growth in 2017. Public construction, which had declined in 2017, could move back into positive territory with airport construction (expansion in terminals and runways), as well as public education construction spending. Retail construction will continue to decline in 2018 as “the bricks and mortar section of retail has really been suffering of late,” according to ConstructConnect economist Alex Carrick. Because of e-commerce, warehouse construction should continue to remain strong and grow in the coming years.¹⁸



Source: 2018 Dodge Construction Outlook¹⁷

Anticipated Equipment Sales & Purchases

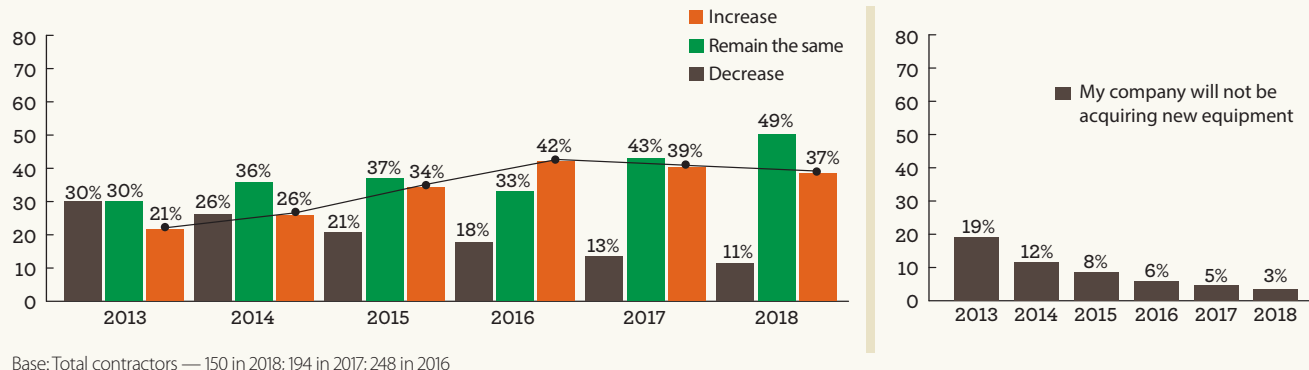
2017 was a good year for equipment sales in the construction sector, and according to the industry, 2018 could see further improvements. 76% of distributors said that their sales of new equipment will increase, while 78% say their sales of used equipment will increase. On the contractor side, 37% indicate that they will purchase more new, while 27% indicate they will purchase more used. The percentage of contractors who commented that they would buy less new and used equipment in 2018 shrunk to the lowest levels in five years.

Distributors and rental companies indicated that their rental fleets will increase in 2018 over 2017, with 55 percent indicating their intention to expand. Notably, only 7% say they will decrease the size of their fleets.

According to a recent nationwide survey conducted by Wells Fargo Equipment Finance, U.S. construction firms indicated that given the possibility of increased equipment rental costs in the range of 5-15%, the majority (63%) of those surveyed would consider purchasing equipment rather than renting. “That such a small increase in rental costs would make companies who rent equipment consider buying instead of renting indicates that the industry is at equilibrium between availability and pricing of rental equipment,” explained John Crum, senior vice president and national sales manager, Construction Group, Wells Fargo Equipment Finance.¹⁹

U.S. Construction Contractor Sentiment – New Construction Equipment Purchasing

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



Source: Wells Fargo 2018 Construction Industry Forecast²⁰

Equipment Financing Volumes

According to the Equipment Leasing and Finance Association's (ELFA) 2017 Survey of Equipment Finance Activity, in 2016:

- Construction equipment represented 8.7% of equipment financing new business volume reported by ELFA member companies, up from 8.1% in 2015.
- As an end-user of equipment finance, the construction industry represented 7.8% of new business volume reported by ELFA member companies, up from 7.3% in 2015.

The Equipment Leasing & Finance Foundation's U.S. Equipment Finance Market Study: 2016-2017 reported that in 2015:

- 78% of respondents in a survey of businesses used at least one form of financing when acquiring equipment.²¹

Equipment Rental Trends

Sales of new construction equipment have been on an upward trend in recent years, but the rapid growth of rental has been eroding some of that acceleration. Equipment distributors and rental companies reported growth in rental volume based on recent research by Wells Fargo. "What we expect from the rental industry is they will increase the size of rental fleets, as they're saying demand for rental will continue to grow. But as a result, there probably won't be a significant ability to put higher prices out there," explained John Crum, head of the construction group at Wells Fargo.²²

The high prices of equipment to meet emission regulations is one of the primary drivers for construction equipment rental, according to recent analysis by research firm Technavio. With Tier 4 regulations now a reality, manufacturers have been forced to design and produce engines that comply with stricter emission

regulations. Various technologies that have been integrating into new equipment include diesel particulate filters (DPF), diesel exhaust fluids (DEF), and selective catalytic reduction (SCR). The incorporation of SCR technology, in particular, is costly and these other new technologies require frequent replacement, driving up maintenance costs and making a stronger case among contractors to go with rental equipment options.²³

And in another area of development within the rental equipment space, equipment dealers, and rental houses have begun partnering with the majority of online equipment services as a way to reach customers in a faster, more direct manner. For example, peer-to-peer equipment rental services like Dozr, EquipmentShare, and AnyQuip have tapped into a previously closed revenue stream for contractors, allowing them to rent out their idle machines to other contractors with just a few taps of their mobile device.²⁴

Construction Sector-Specific Trends & Key Developments

Resiliency As Key

Resiliency is set to become a construction industry watchword in 2018 after last year's onslaught of hurricanes, heat waves, cold waves, flooding, tornadoes, and wildfires. Indeed, more property owners will likely heed the call of organizations like the U.S. Green Building Council and demand resilient site and structure features.

The USGBC in November 2017 announced it would adopt construction standard RELi, which awards points for resilient features such as adaptive design for extreme weather events and their resulting hazards, communications and first-aid resources. The Trump administration also used last year's natural disasters to underscore how important building for resiliency is by declaring November 2017 as Critical Infrastructure Security and Resilience Month. And over the next 12 to 18 months, the construction industry may see more resilient projects mimic those already underway.²⁵

Labor Shortages

Labor shortages will continue to plague the construction industry in 2018 and the years to come. The construction industry will continue to contend with a limited supply of skilled craft workers. Officials in various parts of the country have used words like "dire" and "scary" to describe the availability of qualified labor as younger individuals resist construction as a career option and older workers exit the labor force.

Based on analysis by the Associated General Contractors of America (AGC) released in December 2017, November construction employment increased to its highest level since the same month in 2008, but this has resulted in a smaller pool of candidates, likely constraining future hiring efforts.

Industry groups have for years been lobbying lawmakers for increased federal, state and local funding for trade school, high school, and middle school trade education programs as a way to help create a construction industry labor pipeline, and those efforts could pay off and help ease the problem.

"The labor shortage will continue to be an impediment to company growth and immigration reform will only worsen the trend. Labor-saving technologies will alleviate some of this, but they can only go so far." Explained Ed Sullivan of the Portland Cement Association.²⁶

Tight labor market conditions are prompting firms to change the way they operate, recruit and compensate workers. Most firms report they are making a special effort to recruit and retain veterans (79%); women (70%) and African Americans (64%). Meanwhile, half of construction firms report increasing base pay rates for craft workers because of the difficulty in filling positions. Firms also report they are doing more in-house training to cope with workforce shortages while 47% report they are increasing overtime hours and 41% are increasing their use of subcontractors.²⁷

And the U.S. National Home Builders Association has been working to recruit into the construction sector more American-born workers through its Home Builders Institute, which offers training programs and apprenticeships. Yet there has been “a slow, delayed, and reluctant post-recession return of native-born workers” to construction, the organization has reported. This “underlies the shift towards the higher reliance on immigrants in the construction work force.”²⁸

Stan Marek, of Houston construction firm Marek Bros., said immigration policies such as Texas’ Senate Bill 4, which allows local law enforcement officers to question a detained person’s legal status, have driven immigrant construction workers out of the state.²⁹

Meanwhile, the industry is turning to alternative construction methods to make up for the short supply of workers. Offsite construction and prefabrication, for example, are helping contractors sidestep some labor issues. Using prefabricating MEP racks — 20 to 30-foot panels that are pre-fitted with ductwork, piping and raceways — can allow contractors to make final connections more quickly on a job site and require up to 50% less labor. Increased use of modular construction in 2018 and beyond could also reduce the need for additional workers. Its use has taken off in the hotel and multifamily sectors and can absorb up to 60% of a project’s labor requirements.

Offsite Construction On The Rise

For much of 2017, offsite construction and investment in the delivery method was a key trend. General contractors have been turning to prefabrication and offsite construction facilities to produce building elements in a factory setting to outsmart their competition. And offsite startups have snagged millions in funding, while a growing number of U.S. contractors partnered with prefab companies to fold the method into their main operations.

“With companies like Google, Marriott, Starbucks, and other high-tech firms like Autodesk embracing offsite, there is a ton of investment money looking to revolutionize the construction industry,” commented Tom Hardiman, executive director of the Modular Building Institute. “It’s going to change so fast in the next year.”³⁰

Traditional contractors’ desire to increase project efficiency with offsite components is opening the door to greater collaboration between general contractors and offsite fabricators. Today, many are a hybrid of the two. Plus the increased use of prefab operations allow for the industry to create building product in a weather controlled environment with semi-skilled labor in a safe manufacturing atmosphere, presenting a win-win scenario.

But perhaps one of the biggest disruptors in offsite’s expansion will be Marriott International’s use of the method. The hotel chain plans to add seven offsite manufacturers to its existing lineup this year and will do so while developing a set of goals to compare offsite projects against their site-built equivalents.

Technology & Automation Tackling Jobs

While there are concerns around how technology and automation may negatively impact workers in the construction sector, there is a shift of the conversation toward where automation and technology advancements can take the industry.

Construction is a notoriously dangerous profession—construction worker fatalities increased 6% from 2015 to 2016—and these technologies can be a major boon to increasing safety. Although wearables are slow to be adopted, according to a report *Safety Management in the Construction Industry*, “82% of adopters say they have a positive impact.”³¹ Meanwhile, more contractors are looking to drones to survey sites and improve upon worker safety, as well.³²

Machines also are tackling jobs that are traditionally dangerous for humans, such as the tele-operated machines going into pit mines. And a Pittsburgh-area robot has been deployed to tie rebar to form bridge decks, halving labor hours compared to human labor, while also reducing injuries workers sustain while straddling rebar frames.

Beyond the innovations and investment in construction technologies, industry experts are of the opinion that developments in technology could bolster entry of younger workers into a field plagued by a current labor shortage. Garrett Harley, vice president of strategic accounts for Aconex, explained in an interview in January 2018 that: “Technology is another emerging way to get people into this business. Not many people coming out of school understand there’s this much tech in construction. It’s an exciting time to be a part of it.”³³ These technologies include gamifying safety training courses, improving learner engagement and retention rates.

Continued Interest in Building Information Modeling (BIM)

BIM plays a crucial role in innovation in construction and is the facilitator and enabler for which many technologies are based. 3D printing, cloud-based collaboration, robotics, augmented reality, and artificial intelligence all stem from a central BIM platform. Arrival of these technologies will help to reduce the construction time, as well as cost. Several firms, such as AutoDesk and GRAPHISOFT, have already placed bets on BIM and digitized construction.

BIM will increasingly play a greater role in the optimization of the construction process in the years ahead. With a fully or partially integrated collaborative model, contractors and builders will be better able to tackle a growing number of difficulties that they currently face. And the greater amount of data, in conjunction with the ability to manage it more seamlessly and with higher precision, will likely lead to improvements in the quality of buildings. In short, more complex buildings that have more to offer their residents will be designed and built. Environmental parameters and the modernization of designed structures will be easier to be taken into consideration during the building procedure.³⁴ Indeed, BIM represents the opening of the construction industry to interoperability and improved collaboration.

Artificial Intelligence (AI) & Big Data

Gathering, storing, and analyzing large sets of data has become increasingly easier and cheaper over the last several years, and this is true within the construction industry, as well. With site data tools and big data sets becoming available for contractors and firms, industry watchers expect early adopters to reap rewards

in this space. Big data and artificial intelligence is already being used to drive autonomous equipment, track and optimize worker positioning and schedule materials delivery—all working towards more efficient and timely job sites.

New Policy Regulations Impacting Businesses

Federal tax reform is another issue that could impact the construction industry in the next 12 to 18 months. Looking at the non-residential side, proposed tax reforms are anticipated to create favorable business conditions that would encourage greater investments in construction in general. As for other implications, with capital expenditures able to be expensed rather than depreciated under the tax act, businesses have even more incentive to invest in their businesses.³⁵

Beyond federal policy shaping the industry, some cities, states, and agencies are passing regulation, as well. New York City Mayor Bill de Blasio in October 2017 signed Intro 1447, a law requiring construction workers to undergo at least 40 hours of safety training. And California Governor Jerry Brown signed a law in October 2017 requiring contractors acting as direct contractors on private construction projects to be financially responsible for any wages, fringe benefits, and union contributions left unpaid by subcontractors and their sub-tiers.

Many also will be keeping an eye on potential infrastructure legislation, which has the potential to put up to \$1 trillion into the U.S. construction pipeline. Several companies have engaged in large acquisitions, such as Jacobs Engineering Group acquiring CH2M Hill and AECOM's acquisition of Shimmick Construction, in preparation to take full advantage of the anticipated work.³⁶

Endnotes

- ¹"Impact of Steel Tariffs: The Industry Reacts," *ConstructionEquipmentGuide.com*, March 14, 2018. Retrieved from <https://www.constructionequipmentguide.com/impact-of-steel-tariffs-the-industry-reacts/3947>
- ²"Impact of Steel Tariffs: The Industry Reacts," *ConstructionEquipmentGuide.com*, March 14, 2018. Retrieved from <https://www.constructionequipmentguide.com/impact-of-steel-tariffs-the-industry-reacts/3947>
- ³"Consumer confidence hits 130.8 in February vs expectation of 126.3," *CNBC.com*, February 27, 2018. Retrieved from <https://www.cnbc.com/2018/02/27/us-consumer-confidence-index-february-conference-board.html>
- ⁴"Small Business Default Index (SBDFI)," *PayNet.com*, May 8, 2018. Retrieved from <https://paynet.com/issues-and-solutions/all-paynet-products/small-business-default-index-sbdfi>
- ⁵"Small Business Credit Outlook - Quarterly Report February 2018," *PayNet.com*, February 1, 2018. Retrieved from <https://paynet.com/media/2375/paynet-sbo-022018.pdf>
- ⁶"Wells Fargo Survey: Construction Industry Optimism Highest in 20 Years," *BusinessWire.com*, February 28, 2018. Retrieved from <https://www.businesswire.com/news/home/20180228005845/en/Wells-Fargo-Survey-Construction-Industry-Optimism-Highest>
- ⁷"Commercial Construction Index - Q1 2018," *U.S. Chamber of Commerce*, February 28, 2018. Retrieved from https://www.us-chamber.com/sites/default/files/q1_2018_cci_2-28_final.pdf
- ⁸"Construction contractors will not be affected by tariffs in 2018," *JomacLtd.com*, March 9, 2018. Retrieved from <https://jomacLtd.com/home/jomac-blog/construction-contractors-will-not-be-affected-by-tariffs-in-2018-developers-see-profits-margins-shrink/>
- ⁹"2018 Construction Industry Forecast," *BuildingSolutions.com*, April 16, 2018. Retrieved from <https://www.buildingsolutions.com/industry-insights/the-2018-construction-forecast-report-is-here>
- ¹⁰"2018 Construction Industry Forecast," *BuildingSolutions.com*, April 16, 2018. Retrieved from <https://www.buildingsolutions.com/industry-insights/the-2018-construction-forecast-report-is-here>
- ¹¹"Construction Industry 2018 Spending Forecast," *ForConstructionPros.com*, January 9, 2018. Retrieved from <https://www.forconstructionpros.com/business/article/20985203/special-report-construction-industry-2018-spending-forecast>
- ¹²"Rising mortgage rates hit new home sales hard, an ominous sign for builders," *CNBC.com*, February 26, 2018. Retrieved from <https://www.cnbc.com/2018/02/26/rising-mortgage-rates-hit-new-home-sales-hard-a-bad-sign-for-builders.html>
- ¹³"Peering into 2018: The Outlook for U.S. Housing Markets," *Builder & Developer Magazine*, undated. Retrieved from <https://bdmag.com/peering-into-2018/>
- ¹⁴"What Millennial Home Buyers Want," *NAHBNow.com*, January 22, 2018. Retrieved from <http://nahbnow.com/2018/01/what-millennial-home-buyers-want/>
- ¹⁵"2018 Construction Industry Economic Outlook," *ConstructConnect.com*, November 30, 2017. Retrieved from <https://www.constructconnect.com/blog/construction-news/2018-construction-industry-economic-outlook/>
- ¹⁶"2018 Construction Industry Economic Outlook," *ConstructConnect.com*, November 30, 2017. Retrieved from <https://www.constructconnect.com/blog/construction-news/2018-construction-industry-economic-outlook/>
- ¹⁷"2018 Construction Outlook," *ECMag.com*, January 1, 2018. Retrieved from <https://www.ecmag.com/section/your-business/2018-construction-outlook>
- ¹⁸"2018 Construction Industry Economic Outlook," *ConstructConnect.com*, November 30, 2017. Retrieved from <https://www.constructconnect.com/blog/construction-news/2018-construction-industry-economic-outlook/>
- ¹⁹"Construction execs predict 2018 could be 'best year ever'; most dealers expect equipment sales to increase," *EquipmentWorld.com*, February 28, 2018. Retrieved from <https://www.equipmentworld.com/construction-execs-predict-2018-could-be-best-year-ever-most-dealers-expect-equipment-sales-to-increase/>

- ²⁰“2018 Construction Industry Forecast,” *Wells Fargo*, January 1, 2018. Retrieved from https://digital.wf.com/constructionforecast/?utm_source=web&utm_medium=cefrighttrail&utm_campaign=cifphase2&utm_content=report
- ²¹“Fact Sheet: Equipment Finance in the Construction Industry,” *Equipment Leasing & Finance Association*, August 1, 2016. Retrieved from https://www.elfaonline.org/docs/default-source/data/factsheets/elfafactsheet_construction_august-2016.pdf?sfvrsn=1243d70d_6
- ²²“Survey Finds Positive Outlook Among Equipment Buyers,” *ENR.com*, March 21, 2018. Retrieved from <https://www.enr.com/articles/44199-survey-finds-positive-outlook-among-equipment-buyers?>
- ²³“Will Advances in Construction Equipment Mean More Rentals?” *ConExpoConAgg.com*, September 1, 2017. Retrieved from <http://www.conexpoconagg.com/news/september-2017/will-advances-in-construction-equipment-mean-more-/>
- ²⁴“P2P heavy equipment rental, online sales aren’t here to disrupt dealers—they’re an evolution,” *EquipmentWorld.com*, November 21, 2017. Retrieved from <https://www.equipmentworld.com/online-equipment-sales-and-p2p-rental-services-arent-disrupting-anyone/>
- ²⁵“8 construction trends to watch in 2018,” *ConstructionDive.com*, January 8, 2018. Retrieved from <https://www.constructiondive.com/news/8-construction-trends-to-watch-in-2018/514284/>
- ²⁶“Construction Industry 2018 Spending Forecast,” *ForConstructionPros.com*, January 9, 2018. Retrieved from <https://www.forconstructionpros.com/business/article/20985203/special-report-construction-industry-2018-spending-forecast>
- ²⁷“70% of contractors report labor shortage,” *BuilderOnline.com*, August 30, 2017. Retrieved from http://www.builderonline.com/money/economics/70-of-contractors-report-labor-shortage_o
- ²⁸“4 overlooked jobs most impacted by an immigrant labor shortage,” *AZCentral.com*, February 16, 2018. Retrieved from <https://www.azcentral.com/story/opinion/op-ed/lindavaldez/2018/02/16/immigrant-labor-shortage-jobs-impact/344678002/>
- ²⁹“Construction industry faces labor shortages as workloads rise,” *HoustonChronicle.com*, January 18, 2018. Retrieved from <https://www.houstonchronicle.com/business/real-estate/article/Construction-industry-faces-labor-shortages-as-12508978.php>
- ³⁰“8 construction trends to watch in 2018,” *ConstructionDive.com*, January 8, 2018. Retrieved from <https://www.constructiondive.com/news/8-construction-trends-to-watch-in-2018/514284/>
- ³¹“Safety Management in the Construction Industry,” *McGraw Hill Construction*, 2013. Retrieved from https://www.cpw.com/sites/default/files/publications/SafetyManagementinConstructionSMR-2013_0.pdf
- ³²“8 construction trends to watch in 2018,” *ConstructionDive.com*, January 8, 2018. Retrieved from <https://www.constructiondive.com/news/8-construction-trends-to-watch-in-2018/514284/>
- ³³“8 Construction Trends to Watch in 2018,” *OrionProp.com*, January 16, 2018. Retrieved from <http://www.orionprop.com/top-five/8-construction-trends-to-watch-in-2018/>
- ³⁴“The Future Of Construction – BIM,” *GenieBelt.com*, May 9, 2017. Retrieved from <https://geniebelt.com/blog/bim-maturity-levels>
- ³⁵“What slowdown? Pace of construction activity projected to accelerate through 2019,” *AIA.org*, January 19, 2018. Retrieved from <https://www.aia.org/articles/173086-what-slowdown-pace-of-construction-activity>
- ³⁶“8 Construction Trends to Watch in 2018,” *OrionProp.com*, January 16, 2018. Retrieved from <http://www.orionprop.com/top-five/8-construction-trends-to-watch-in-2018/>

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