The Healthcare Sector Pre- and Post-COVID-19

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Abstract

In this paper, Daniel Pomfrett and Gary Brett look at how the healthcare construction market was trending prior to the emergence of COVID-19, how it's been affected by the virus to date, and what its future might look like once the pandemic has subsided.

The Healthcare Sector Pre- and Post-COVID-19

The healthcare sector has long been an important part of the construction industry, but never more so than now with the occurrence of COVID-19. Hospitals, labs, clinics, and other healthcare facilities are at the frontlines of research, testing, and treatment, and are essential in our ability to fight the virus and still treat basic healthcare needs. At the same time, healthcare construction has been faced with many of the same challenges facing all construction projects, including supply chain disruptions, new social distancing guidelines that alter how project teams function, and overall economic uncertainty.

Where were we?

Healthcare Pre-COVID-19

To understand the impact of COVID-19 on the healthcare construction market, it's worth looking at the state and trajectory of the market prior to the emergence of the pandemic. Here is a statistical overview of where the market stood heading into 2020:

- Prior to the pandemic, the healthcare sector was seeing steady growth in construction volume:
  - 2016: 2.3%
  - 2017: 4.4%
  - 2018: 0.4%
  - 2019: 2.4%
  - 2020: 6.6%
  - 2021: 7.6%
  - 2022: 5.7%
- In 2019, California was the most active healthcare construction market, with a reported $4.8 billion of activity. The second largest such market was Texas at $3.9 billion. The largest overall construction market in the U.S., New York, was third at $2.9 billion.
- Private healthcare accounted for 79% of total construction volume in 2019.
- $21 billion was spent on the construction of new hospitals in 2019.
- Projections made in 2019 for the coming years estimated a growth in construction of between 5% and 7%.
- A recent report and survey from the American Hospital Association estimated there are 6,146 hospitals in the United States, equating to 924,107 total staffed beds.
- U.S. hospital care expenditure in 2019 was expected to top $1.25 trillion.

What are the short-term challenges?

There are significant challenges in the short term:

- Current estimates have reduced projections for construction volume growth within the healthcare sectors by between 1.2% and 3.6%:

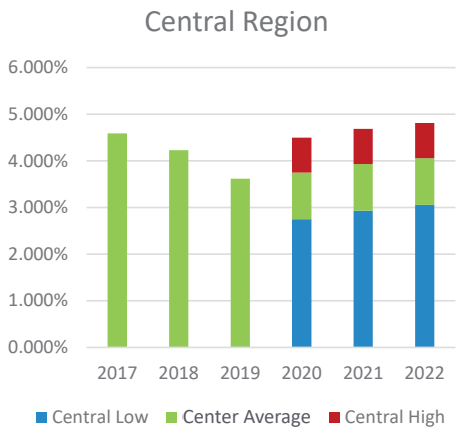
Projections pre-COVID	Current Projections
- 2020: 6.6%	- 2020: 3.0%
- 2021: 7.6%	- 2021: 5.8%
- 2022: 5.7%	- 2022: 4.5%

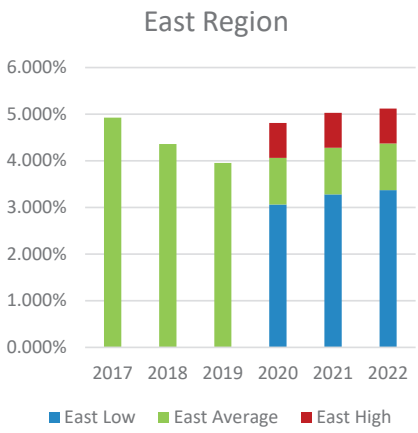
- Material prices are expected to contract until the end of Q2 2020 before bouncing back in early 2021. We have already seen significant price drops in key materials and commodities such as oil, copper, and construction steel.
- Most facilities have postponed elective surgeries, diverting staff to the COVID-19 response, delaying construction projects, and reducing cashflow.
- Some locations are now re-introducing elective surgeries, but this pause in revenue collection could determine how providers fare over the coming months.
- Although products will be available, the mass reduction in flights, along with container movement restrictions, point to potential increases in freight costs. The extent of this increase is unknown, but as a comparison, freight prices tripled during the recent tariff negotiations between the U.S. and China.
- There will be some expected delays as the facilities get through the accumulated backlog, but that should be cleared in short order. Imported materials and supply restrictions are already starting to ease as China gets back to full production.
- Drawing from our own market research, we expect cost escalation to reduce over the short-term; however, we are not expecting those figures to drop significantly. Current expectations are between 0.5% and 1% as an average across regions and sectors.

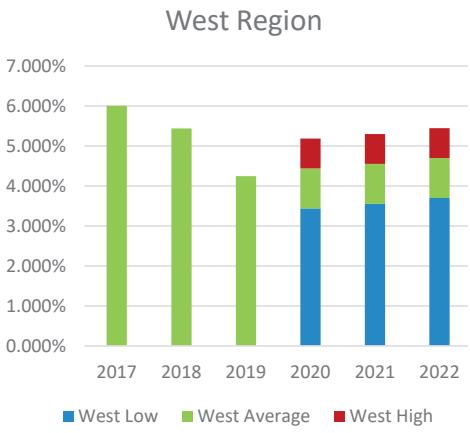
What are the long-term challenges?

Moving further into 2020 and beyond, the healthcare sector will face some significant challenges, which we discuss below:

- Escalation in the long-term, starting in early 2021, is expected to climb as projects come back online and an already-stretched labor market is placed under pressure. This could ultimately result in escalation jumping ahead of 2019 projections. The charts below show current projections for expected average and low and high ranges for escalation over the coming years.







- ***Telemedicine facilities and "virtual appointments" are expected to be more widely employed by healthcare professionals going forward. Technology will be required to ensure healthcare providers are not limited in their ability to treat patients, and that users are receiving the attention and care they need.***

- With new treatment and consultation methodologies, as well as social distancing requirements, properties will need to be assessed to make sure they are fit for use, or to determine if they are even needed at all.
- Revenue could be further affected by the number of unemployed workers and in particular their access to healthcare benefits.
- Already an issue in higher-taxed states, population migration may be exacerbated as the population increasingly moves to lower-cost locations, such as states in the South

How will the contracting community be affected?

- Reduction in manpower — current anecdotes from the contracting community suggests that some labor skillsets are receiving higher and steadier payments under unemployment benefits; therefore, bringing them back to the industry will be a challenge.
- Insurance payments have already increased, with some reports noting an increase of annual prices of almost 1%.
- Social distancing will affect the ability to move manpower and materials around sites, which will ultimately affect labor utilization. Current projections have this at between 10% and 20%, depending on the type and size of the project.
- High-rise and restricted site locations, such as in major cities, will see higher increases in costs due to additional general requirement issues (e.g. additional hoists, reduction of people in elevators, etc.), added schedules, and management costs to implement the new standards.
- Further general condition price increases could be seen with the introduction of nurse stations, an increase in toilet provisions, more personal protective equipment, etc.
- Construction protocols may need complete revaluation.
- Commodity and energy market reactions will be key, as this will ultimately drive funding availability for capital plans.

How will the designs for new and renovated facilities change?

- More emphasis on entrance screening, such as temperature surveys and thermal cameras (and eventually rapid testing).
- Workplaces will include an increased number of handwashing, sanitizer, and hand lotion stations.
- Layout modifications and adjustments will be made to workspaces to facilitate social distancing, particularly in densely populated spaces.
- Technology, equipment, signage, and barriers that facilitate contactless transactions and interactions will be more widely implemented.
- HVAC control changes, such as those that increase outside air and the number of air changes, will become more commonplace.
- Many facilities will look to increase air filtration, such as with HEPA filters.
- Workspaces will utilize designs that promote easy cleaning and disinfection.
- Teams will be working more remotely, which will require increased usage of technology and communication tools to stay connected and coordinated.

Key considerations for the future

- All parties should be consistently monitoring their projects, which we call "360 Knowledge." Factors that should be closely monitored include funding, risk analysis, current construction status, schedule, and lead times. Key to successful monitoring will be ensuring that you have the right team members in place who have their finger on the pulse of the project.
- Understand the full financial picture of the project and not just the hard construction cost. Known as "day 1 financial accounting," this will allow clients and owners to know the projected final value of the project at any point during the project, starting from inception.
- Fully vet and understand all of the implications to the means and methods of your project. For example, how will materials and people move throughout the facility, particularly in tight spaces such as elevators, bathrooms, and waiting rooms? What procedures will be in place to ensure those materials are not contaminated?
- Monitor, understand, and plan for all likely scenarios. If recent times have taught us anything, it is to expect the unexpected.
- Having the right team with the right qualifications and experience will be key to the success of your project. Ensure that they have experience with developing and implementing disaster recovery plans.
- Consider contracts for both current and future projects, what provisions are there for issues such as COVID-19, and how you can proactively manage potential claims and delays in a non-adversarial way. Explore options for accelerating your project and how those options can be implemented to benefit all parties.

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Dan is a Vice President at Cumming, as well as our National Director of Forecasting and Analytics. He holds a B.S. degree in quantity surveying, is a certified member of the Royal Institution of Chartered Surveyors, and has more than 20 years of industry experience. He also researches and writes Cumming Insights, the company's quarterly report that breaks down economic trends and projections for regional construction markets across the country. In addition to his work in economics, Dan has provided cost-related services for numerous high-profile clients, including international architectural firms, museums, cultural institutions, and private developers.

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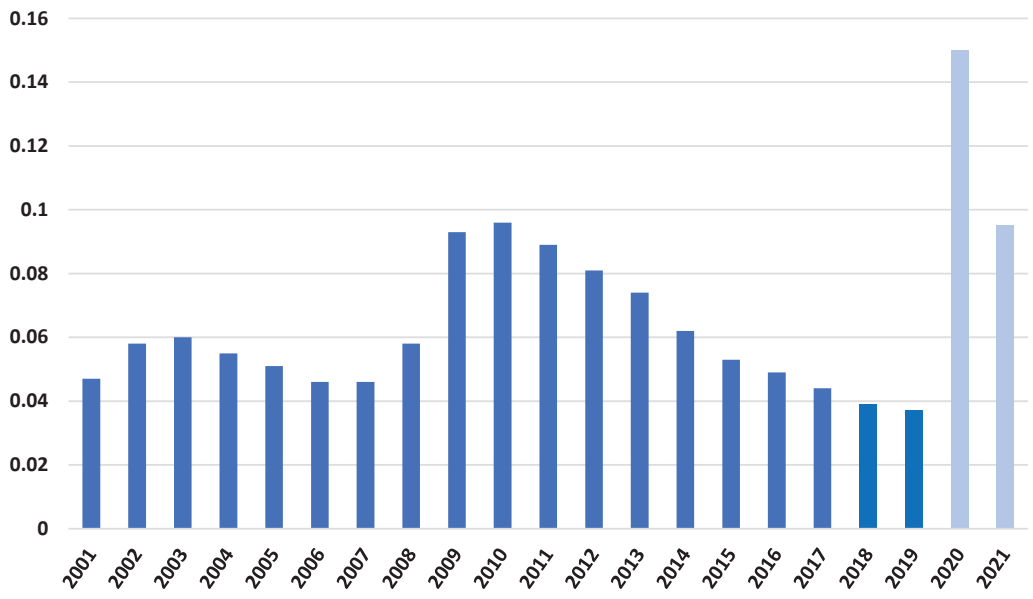
Gary is a Vice President at Cumming in charge of our Healthcare Cost Management team. He holds a B.S. degree in quantity surveying, is a certified member of the Royal Institution of Chartered Surveyors, and has more than 30 years of experience in the construction industry, 20 of which have been dedicated to healthcare. Gary has estimated hundreds of projects and is known for the accuracy and reliability of his budgets. Over the past several years, he has pioneered the use of D-Profiler at Cumming to help his clients better visualize project scope and expedite the estimating process.

Data Sheet: Employment

U.S. Unemployment Rate Forecast (2001 - 2021)

It is expected that unemployment will plateau at just above 15% for the remainder of 2020, with projections of a reduction to 9.5% by the end of 2021.



Year	Rate
2010	9.6%
2011	8.9%
2012	8.1%
2013	7.4%
2014	6.2%
2015	5.3%
2016	4.9%
2017	4.4%
2018	3.9%
2019	3.7%
2020	15.0%
2021	9.5%

Source: U.S. Bureau of Labor and Statistics, Congressional Budget Office

Current Unemployment Profile Across the U.S.

Construction has been affected fourth-most among all employment categories, with unemployment at 16.6%. The labor markets, however, remain tight; projects scheduled to go out for bid in mid-2021 or later may face increased demands for labor, leading to skilled worker shortages.

Non-agricultural private wage and salary workers	15.60 %
Mining, quarrying, and oil and gas extraction	10.20 %
Construction	16.60 %
Manufacturing	13.20 %
Wholesale and retail trade	17.10 %
Transportation and utilities	13.50 %
Information	11.00 %
Financial activities	5.40 %
Professional and business services	9.80 %
Education and health services	10.90 %
Leisure and hospitality	39.30 %
Other services	23.00 %
Agriculture and related private wage and salary workers	9.60 %
Government workers	9.40 %
Self-employed workers, unincorporated, and unpaid family workers	9.70 %

Source: U.S. Bureau of Labor and Statistics

Data Sheet: Escalation

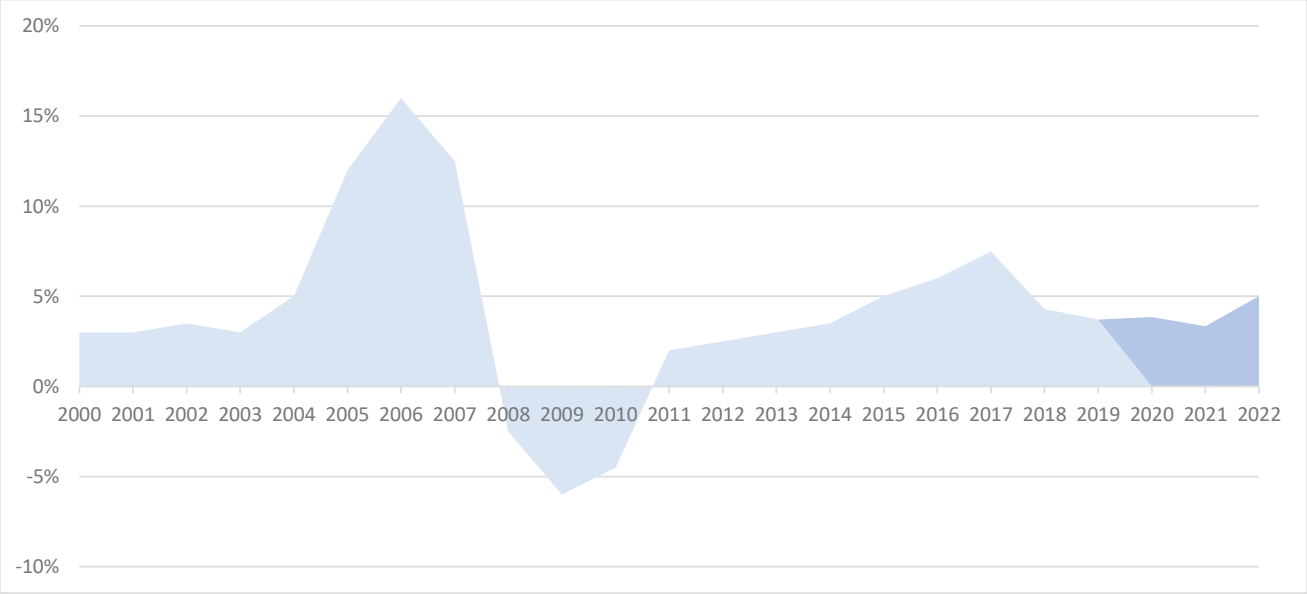
Construction-specific Data

Unemployment in the construction industry is expected to rise until the end of the year. We do not expect workers to leave the industry at the same rate they did during the 2008 recession, but this trend will tighten a market that is already below capacity.

Source: U.S. Bureau of Labor and Statistics, Congressional Budget Office

Escalation Projections

Prices are expected to decrease by 0.5% to 1% over the coming months. Q1 2021 should see increases driven by rising labor costs, along with expanded general conditions and project requirements. Productivity is expected to be affected by between 10% and 20%.

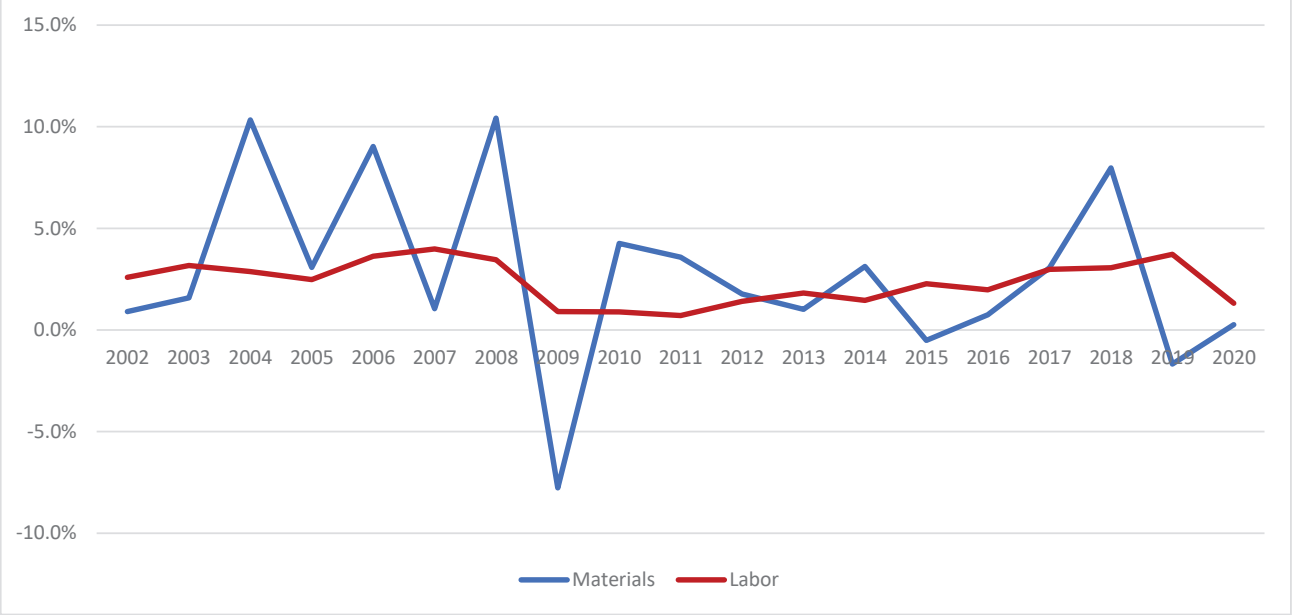


Source: Cumming Internal Database

Data Sheet: Key Commodities

Material Price Index

Overall, material prices will be cyclical and consideration must be given as to when to purchase materials. Labor costs are still expected to grow into 2021 and 2022.



Source: U.S. Bureau of Labor and Statistics, Congressional Budget Office

Key Commodities

Key materials commodities have seen wholesale reductions in price, with the oil industry hit the hardest. This trend is expected to level out by the end of the year before increasing again.

	Units	Last Week	Last Month	Change	Last Year	Change
Crude oil, Brent	(US$/barrel)	28.504	22.5325	26.5%	71.252	-60.0%
Crude oil, WTI	(US$/barrel)	23.572	24.405	-3.4%	61.814	-61.9%
Natural gas, Henry Hub	(US$/MMBtu)	1.8766	1.7675	6.2%	2.596	-27.7%
Aluminum, LME	(US$/metric ton)	1442.125	1432.5	0.7%	1764.5	-18.3%
Copper, LME	(US$/metric ton)	5149.125	4968.5	3.6%	6130.5	-16.0%
Nickel, LME	(US$/metric ton)	12009	11348.5	5.8%	11894.375	1.0%
Iron ore 62%, CFR China	(US$/dry metric ton)	84.254	82.6525	1.9%	94.354	-10.7%
Rubber (RSS3), Singapore	(Cents/kilogram)	135.2	131.4	2.9%	174.78	-22.6%
Lumber, North America	(US$/mfbm)	333.64	303.9	9.8%	338.36	-1.4%

Source: IHS Insights