

May 2022

COVID-19 and Multifamily Construction Costs

The onset of the COVID-19 pandemic in 2020 disrupted and transformed many aspects of everyday life. One of the ramifications of the pandemic thus far has been the ongoing global supply chain crunch that has made the cost of construction materials skyrocket.

As a result of the cost of materials increasing, the total cost to construct multifamily projects has also increased. Rising land prices and higher labor costs have also impacted development costs, as well as the shortage of construction workers.

Unsurprisingly, multifamily construction costs vary by metro area, and some areas have experienced higher increases in costs than others. Data provided by research vendor RSMean of the Gordian Group shows that multifamily construction costs across 1-3 story buildings, 4-7 story buildings, and 8-24 story buildings were up by a healthy margin in 2022 compared to 2020.

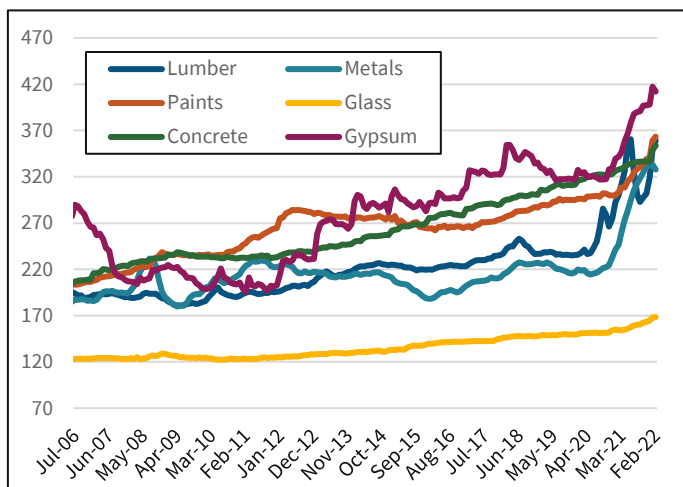
Cost of Materials Up Significantly

While the reasons for the global supply chain disarray are complex, the consequences for multifamily construction projects in the U.S., which rely on this global supply chain, are straightforward. The cost of material has increased significantly. Ironically, the primary reason that these projects rely on materials sourced from around the world was to keep building material costs down.

According to an independent survey conducted by John Burns Real Estate Consulting, in the third quarter of 2021, homebuilders reported that the costs of certain construction elements had increased. Although the pandemic began in first quarter of 2020, the financial and supply chain ramifications did not fully set in until second quarter 2020.

The price of most construction materials rose significantly from the third quarter of 2020 to the third quarter of 2021. For example, the price of steel/aluminum and electrical/lighting were up 22 percent and 13 percent, respectively, year-over-year. Although the price of lumber improved by 2 percent during this time period, this improvement reflected increases in the price of lumber that occurred between 2017 and 2018, which was due in part to tariffs that were imposed in 2017. After stabilizing in 2019, lumber prices then experienced significant volatility during the period from the third quarter of 2020 to the third quarter of 2021, and still remain elevated, as seen in the chart below.

Materials Year-Over-Year Percent Change



Source: BLS

**% Change in Builder Construction Costs
Q3 2020 to Q3 2021**

Construction Element	Q3 21	Q3 20	% Change YOY
Lumber	57%	59%	-2%
Other*	42%	7%	35%
Deck	38%	0%	38%
Steel/Aluminum	27%	5%	22%
Electrical/Lighting	18%	5%	13%
Vinyl Siding	17%	5%	12%
Windows/doors/trim	16%	7%	9%
Framing/block	15%	12%	3%
Brick/stucco	14%	3%	11%
Plumbing/HVAC	14%	4%	10%
Roofing/shingles	12%	5%	7%
Insulation	12%	4%	8%
Foundations/concrete	12%	5%	7%
Paint	12%	4%	8%
Drywall	11%	6%	5%
Fiber cement siding	9%	0%	9%
House wrap	9%	0%	9%
Flooring	9%	3%	5%
Cabinetry	9%	4%	4%
Appliances	7%	5%	2%

Source: John Burns Real Estate Consulting Independent Survey

*Other includes garage doors and core walls.

Multifamily Economic and Market Commentary

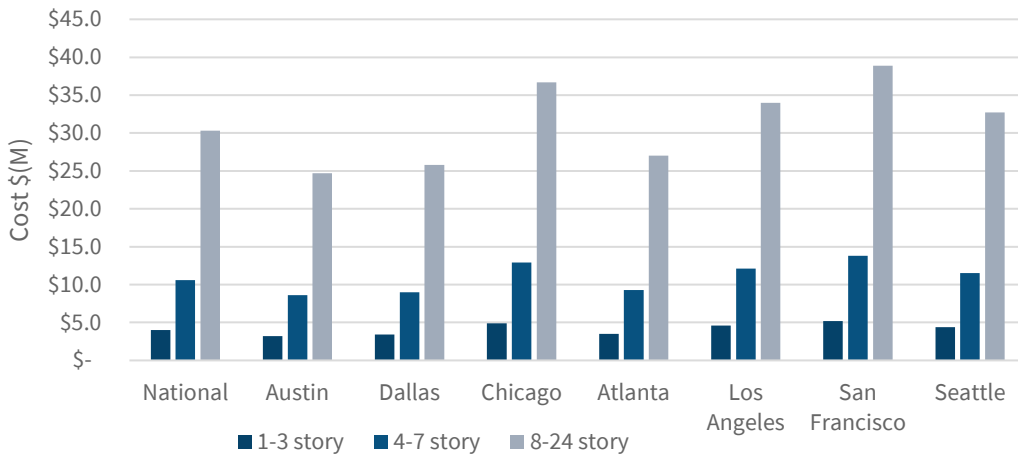
Multifamily Construction Costs Up Across All Metros

The elevated prices of building materials has directly impacted the total building costs for multifamily projects across all facets of construction (e.g., materials, land, zoning) and all metros. According to RSMMeans data provided by Gordian, multifamily building costs are up by a sizeable margin among 1-3 story apartment buildings, 4-7 story buildings, and 8-24 story buildings. Nationally, the price to construct an 8-24 story apartment building, as of February 2022, has increased approximately 8.3 percent since 2020. For 4-7 story apartment buildings, the price of construction increased by 10.4 percent, and it increased 17.5 percent for 1-3 story buildings.

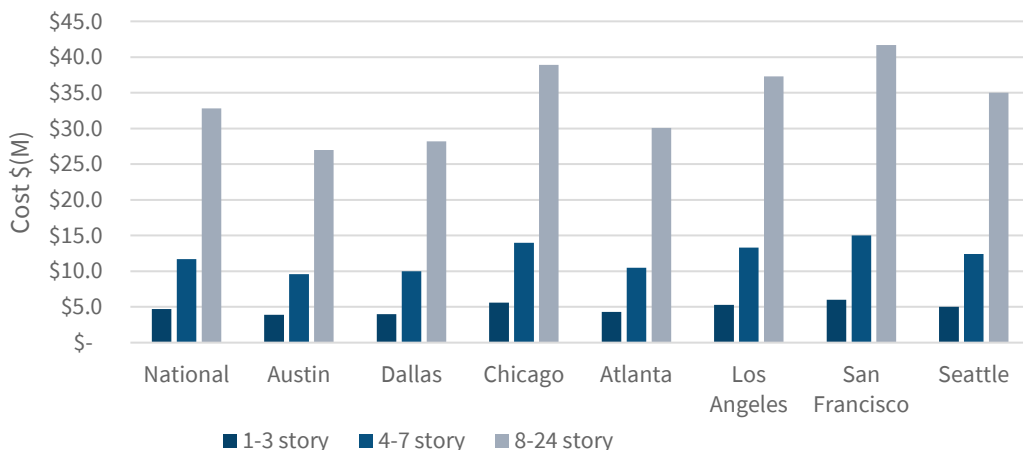
As seen in the charts below, multifamily construction costs are highest in the San Francisco area. As of February 2022, the price of constructing an 8-24 story apartment building was approximately \$41.7 million – an increase of 7.2 percent compared to 2020.

The cost of constructing smaller properties has also gone up. In fact, in Atlanta the price of constructing a 1-3 story multifamily building increased by 23 percent in 2022 compared to 2020. But other metros weren't far behind, including Austin and Dallas, which saw construction costs for 1-3 story apartment building increase by 22 percent and 18 percent, respectively, during the same time frame.

Multifamily Construction Costs Across Key Metros as of 2020



Multifamily Construction Costs Across Key Metros as of 2022



Source: RSMMeans



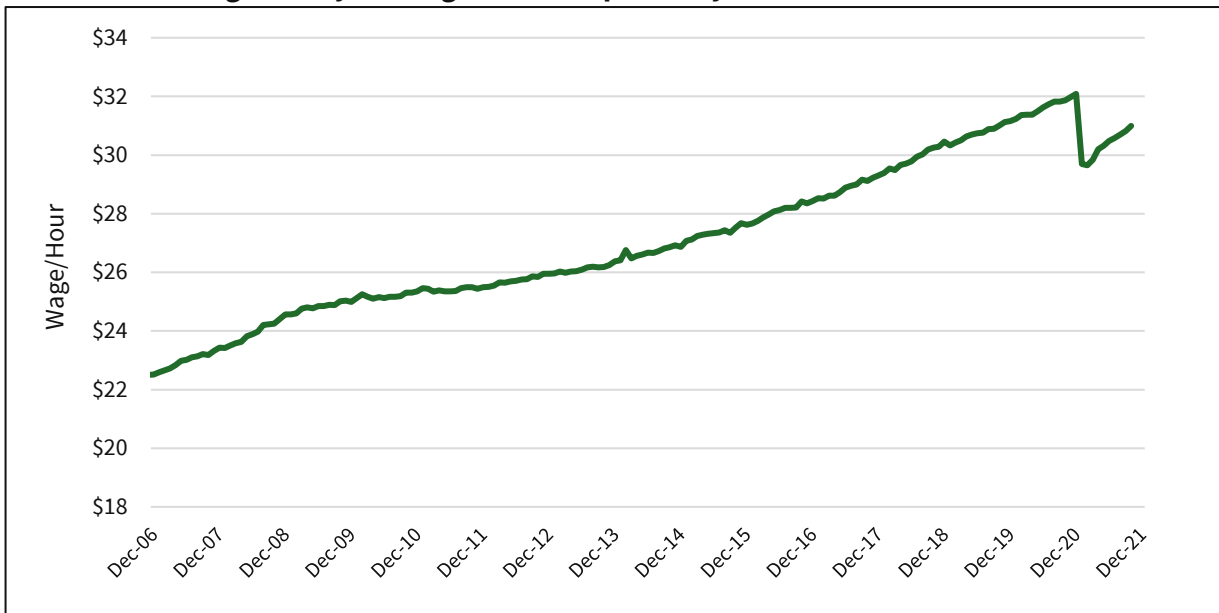
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Higher Labor Costs Are Also Driving Higher Construction Costs

Supply chain issues are not the only reason that construction costs are at record highs. Even before the pandemic, construction firms expressed frustration at the lack of construction workers. The pandemic exacerbated this issue, as many construction sites required socially distancing, and some were shut down temporarily because local jurisdictions deemed new construction non-essential.

During the early months of the pandemic, the average hourly earnings for construction workers fell sharply, as illustrated in the chart below. However, since that time it's been on a rapid ascent. As of December 2021, the average hourly wage for construction workers was approaching \$31.25 per hour, nearly back to pre-pandemic levels. Construction firms have been faced with offering higher wages, which, along with rising material costs, has placed upward pressure on overall construction costs. And these cost constraints aren't expected to ease anytime soon. It's estimated that in 2022 alone the construction sector will need to attract an additional 650,000 workers (on top of its regular workforce level) to meet the increased demand for labor, according to a recent report from the Associated Builders and Contractors.

Average Hourly Earnings of Non-Supervisory Construction Workers 2006-2021



Source: BLS

Are Elevated Costs the New Normal?

The severity and duration of the pandemic-related supply chain disruptions clearly contributed to the increase in multifamily building costs, as the prices of building materials have increased substantially over the past two years. Now added to the mix is inflation, which in the United States is at its highest level since the 1970s, and it's expected to increase construction costs even further in the short run.

Multifamily rents are also at their highest levels in years as a result of pent-up demand from the pandemic, and with rising construction costs it's reasonable to assume rents will continue to increase to offset the increased expenses. Even though supply chain disruptions appear to be improving, elevated prices are likely here to stay.



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