

July 2022 (based on June 2022 Starts Stats)

# Construction Industry Snapshot



## June's Nonresidential Construction Starts -24% M/M, +15% Y/Y & +27% Ytd

June saw strength in mega-sized project groundbreakings, but not to the same vast degree as in May. As a result, June's volume of construction starts, excluding residential work, was -24.3% versus May.

June 2022 compared with June 2021, however, was +14.5%. Also, on a year-to-date basis, the performance of nonresidential starts has been +27.2% versus the dollar volume in the first half of 2021.



Comparison	Commercial	Retail	Private Office	Hotel & Motel	Industrial	Institutional	Schools	Hospitals & Clinics	Heavy Engineering	Total Non-Residential
Jun 2022 vs May 2022	-25%	-38%	+60%	+2%	-40%	-28%	-3%	-79%	-9%	-24%
Jan-Jun 2022 vs Jan-Jun 2021	+1%	+9%	+6%	+2%	+316%	+2%	+10%	-1%	+24%	+27%
Jan-Jun 2021 vs Jan-Jun 2020	-9%	+13%	-32%	-44%	+8%	-7%	-14%	+57%	-4%	-5%

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## June's Nonresidential Construction Starts -24% M/M, +15% Y/Y & +27% Ytd

### June Tried, but didn't Match May for 'Megas'

ConstructConnect announced today that June 2022's volume of construction starts, excluding residential work, was \$47.5 billion (green shaded box, bottom of page 11), a decrease of -24.3% versus May's figure of \$62.7 billion (previously reported as \$63.4 billion). The sizable drop was to be expected, given that May had such an exceptional array of mega-sized project groundbreakings.

A project is considered to be a 'mega' when its estimated value is \$1 billion or more. In the first quarter of this year, there was only one such project for an estimated \$2 billion. In Q2, however, the floodgates opened. In April, there were five 'megas' for \$17.0 billion; in May, a lower number, four, but a higher dollar amount, \$20.0; and in June, three for nearly \$8.0 billion (see Top 10 projects list on page 8.)

Among mega projects in April and May, there were two that stood out from the others for being in double-digit billions of dollars, an LNG facility in Louisiana for Tellurian and a computer wafer manufacturing plant in the Lone Star State for Texas Instruments. June's largest project start was the BlueOvalSK Battery Plant in Glendale, Kentucky, for Ford Motor Company and SK Innovation, a South Korean joint-venture partner.

June 2022's total dollar volume of nonresidential construction starts when compared with June 2021 was a respectable +14.5%. The year-to-date total dollar volume of nonresidential construction starts in 2022 has been ahead by more than a quarter, +27.2%, a quite robust improvement.

With rapid price advances (i.e., inflation) still in full swing and interest rates in the ascendant, there's good reason for much talk about recession, at least concerning the consumer spending and housing start sides of the economy. But in non-residential construction, there's an inventory of upcoming super-sized projects that may see it through the hopefully temporary hard times.

The kinds of huge undertakings working their way past mere planning stages include expansions of electric vehicle manufacturing capacity; new battery- and computer chip-making plants; rapid transit and rail infrastructure; and raw materials development and oil, natural gas, and electric power works.

To complete the starts picture, the GRAND TOTAL (i.e., adding residential to nonresidential activity) in June 2022 was -13.1% m/m, +3.6% y/y and +14.8% ytd.

### NRB and Engineering Soar, Residential Stands Still

There are three major sub-categories of total starts: residential, nonresidential building and heavy engineering/civil. On a year-to-date percentage-change basis in June 2022, nonresidential building and engineering starts both performed admirably, +29.0% and +24.4% respectively. Residential was stuck in neutral, +0.7%.

But it was residential that was leading on a month-to-month basis in June, +12.1%. Nonresidential building and engineering were unable to keep up with their buoyant results from May. They were -31.7% m/m and -8.7% m/m respectively.

### Y/Y Trailing 12-Month Starts Stats on Uptrend

Other statistics often beloved by analysts are trailing twelve-month (TTM) results and these are set out for all the various type-of-structure categories in Table 10 on page 11 of this report.

Grand Total TTM starts in June 2022 on a month-to-month basis were +1.3%, a slowing of the pace from both May's +6.1% and April's +4.4%.

On a year-over-year basis in June 2022, GT TTM starts were +19.9%, beating both May's +18.8% and April's +11.6%.

### Res Bests Nonres in PIP Numbers

'Starts' compile the total estimated dollar value and square footage of all projects on which ground is broken in any given month. They lead, by nine months to as much as two years, put-in-place (PIP) statistics from the Census Bureau which are analogous to work-in-progress payments as the building of structures proceeds to completion.

PIP numbers cover the 'universe' of construction, new plus all

Continued on page 3

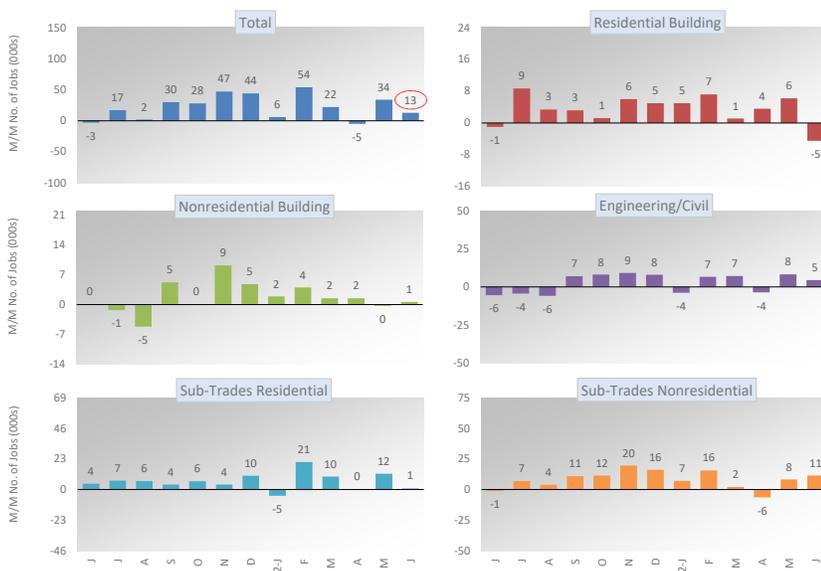
TABLE 1: VALUE OF UNITED STATES NONRESIDENTIAL CONSTRUCTION STARTS — JUNE 2022 (ConstructConnect®)

	Jan-Jun 2022 (\$ billions)	% Change Jan-Jun 22 vs Jan-Jun 21	% Change Jun 22 vs Jun 21	% Change Jun 22 vs May 22
Hotel/Motel	3.710	2.3%	-26.1%	1.8%
Retail/Shopping	7.666	8.6%	-32.1%	-37.7%
Parking Garage	1.076	9.7%	14.6%	93.2%
Amusement	3.233	4.4%	-39.9%	-4.6%
Private Office	8.905	5.7%	45.1%	59.8%
Government Office	6.086	19.2%	75.0%	9.0%
Laboratory	1.784	70.3%	167.3%	125.9%
Warehouse	10.400	-26.0%	-42.6%	-35.4%
Miscellaneous Commercial *	6.098	18.4%	-77.9%	-80.3%
<b>COMMERCIAL (big subset)</b>	<b>48.958</b>	<b>0.8%</b>	<b>-24.5%</b>	<b>-24.6%</b>
<b>INDUSTRIAL (Manufacturing)</b>	<b>44.801</b>	<b>315.9%</b>	<b>585.3%</b>	<b>-40.0%</b>
Religious	0.450	-19.5%	-1.4%	16.0%
Hospital/Clinic	9.916	-0.8%	-49.9%	-79.2%
Nursing/Assisted Living	1.821	-41.5%	-60.7%	96.7%
Library/Museum	1.580	19.5%	-38.1%	-40.6%
Fire/Police/Courthouse/Prison	3.525	-9.2%	-21.8%	4.3%
Military	3.784	-11.4%	-68.3%	-2.1%
School/College	37.204	9.6%	-7.4%	-2.6%
Miscellaneous Medical	3.505	-1.8%	-27.9%	-35.0%
<b>INSTITUTIONAL</b>	<b>61.786</b>	<b>1.9%</b>	<b>-24.4%</b>	<b>-28.2%</b>
Miscellaneous Non-residential	3.289	3.2%	6.7%	-12.8%
<b>NONRESIDENTIAL BUILDING</b>	<b>158.834</b>	<b>29.0%</b>	<b>9.6%</b>	<b>-31.7%</b>
Airport	3.153	20.1%	-31.7%	-40.4%
Road/Highway	45.468	30.3%	20.2%	-14.4%
Bridge	14.904	46.6%	61.0%	-12.4%
Dam/Marine	3.504	13.3%	-36.0%	-40.9%
Water/Sewage	21.200	22.7%	31.7%	-3.0%
Miscellaneous Civil (power, pipelines, etc.)	11.910	-4.1%	36.2%	53.5%
<b>HEAVY ENGINEERING (Civil)</b>	<b>100.140</b>	<b>24.4%</b>	<b>23.1%</b>	<b>-8.7%</b>
<b>TOTAL NONRESIDENTIAL</b>	<b>258.974</b>	<b>27.2%</b>	<b>14.5%</b>	<b>-24.3%</b>

\* Includes transportation terminals and sports arenas.

Source: ConstructConnect Research Group/Table: ConstructConnect.

GRAPH 1: CHANGE IN LEVEL OF U.S. CONSTRUCTION EMPLOYMENT, MONTH TO MONTH (M/M) — TOTAL & BY CATEGORIES — JUNE 2022



Monthly average jobs creation in the U.S. construction sector so far in 2022 has been +21,000. Last year's comparable figure for Jan-Jun was +3,000. ... Total U.S. jobs growth presently +4.3% y/y; construction, +4.0% y/y.

For each month, 'net' = zero. 'Sub-trade' in BLS data referred to as 'specialty' trade.

Data Source: Bureau of Labor Statistics (BLS)/Chart: ConstructConnect.

Continued from page 2

manner of renovation activity, with residential traditionally (i.e., over the decade preceding the pandemic) making up two-fifths (about 40%) of the total and nonresidential, three-fifths (i.e., the bigger portion, at around 60%).

Over the past several years, however, the mix has undergone a massive and startling shift. In 2021's full year PIP results, the residential to nonresidential relationship was about half and half. Through May of this present year, 2022, the ratio, on a not seasonally adjusted (NSA) basis, has swung even more in residential's favor, 53.0% to 47.0%.

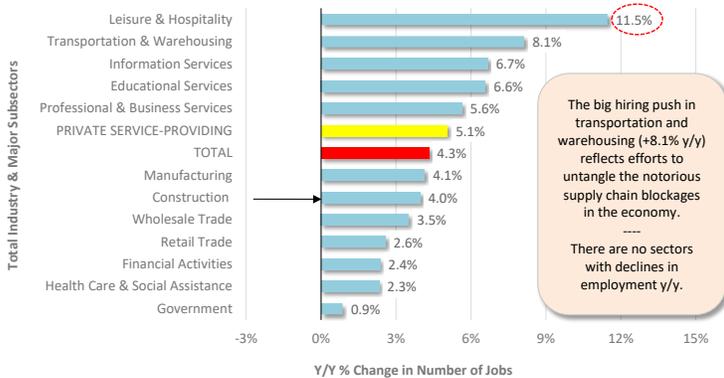
The January-May 2022 over January-May 2021 total dollar volume of PIP construction was +11.0%, with residential at +21.6% and nonresidential, a minimal +1.0%. As the second half of 2022 arrives, and the months tick by, the big disparity in gains will almost certainly narrow.

PIP numbers, being more spread out, have smaller peak-over-trough percent-change amplitudes than the 'starts' series. As an additional valuable service for clients and powered by its extensive 'starts' database, ConstructConnect, in partnership with Oxford Economics, a world-leader in econometric modeling, has developed put-in-place construction statistics by types of structure for U.S. states, cities and counties, actuals and forecasts. ConstructConnect's PIP numbers are being released quarterly and are featured in a separate reporting system.

## Construction Claimed Less than its Share of Total Jobs Increase

Construction's share of U.S. total non-farm employment in the *Continued on page 4*

GRAPH 3: Y/Y JOBS CHANGE, U.S. TOTAL INDUSTRY & MAJOR SUBSECTORS — JUNE 2022 (BASED ON SEASONALLY ADJUSTED PAYROLL DATA)



June 2022's y/y changes in employment within the pandemic's initially hardest-hit sector, 'leisure & hospitality', were: 'hotels/motels', +19.4%; 'amusements/gambling', +12.1%; and 'restaurants & bars', +9.4%.

Data source: Payroll Survey, U.S. Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

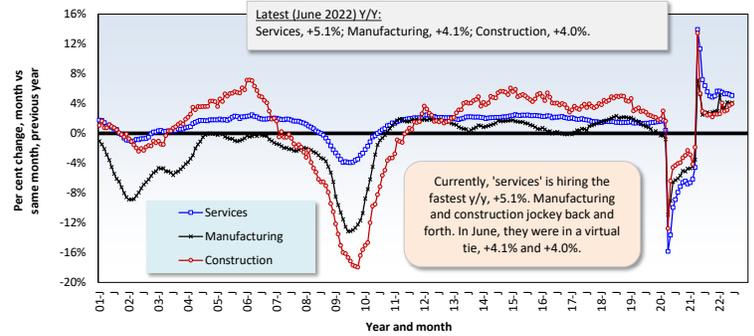
TABLE 2: MONITORING THE U.S. EMPLOYMENT RECOVERY — JUNE 2022

The Big Drop (revised data) April 2020 vs Feb 2020 (Feb 2020 was last month unaffected by COVID-19) Millions	Change in Number of Jobs (Millions)		% Change		Jobs Recovery Since Apr 2020, Millions	Claw Back Ratio
	Jun 2022 vs Feb 2020 (Feb 2020 was last month unaffected by COVID-19)	Jun 2022 vs May 2022 (i.e., vs previous month)	Jun 2022 vs Feb 2020 (Feb 2020 was last month unaffected by COVID-19)	Jun 2022 vs May 2022 (i.e., vs previous month)		
-21.991 (-14.4%)	-0.524	0.372	-0.3%	0.2%	21.467	97.6%
-18.475 (-17.0%)	0.143	0.333	0.1%	0.3%	18.618	100.8%
-1.362 (-10.7%)	0.012	0.029	0.1%	0.2%	1.374	100.9%
-1.108 (-14.5%)	0.046	0.013	0.6%	0.2%	1.154	104.2%
-2.245 (-14.4%)	0.179	0.015	1.2%	0.1%	2.425	108.0%
-0.506 (-8.7%)	0.759	0.036	13.1%	0.6%	1.265	250.0%
-0.280 (-3.2%)	0.081	0.001	0.9%	0.0%	0.361	128.9%
-2.302 (-10.8%)	0.880	0.074	4.1%	0.3%	3.182	138.2%
-0.261 (-9.0%)	0.105	0.025	3.6%	0.8%	0.366	140.2%
-2.839 (-11.5%)	-0.259	0.096	-1.1%	0.4%	2.580	90.9%
-8.203 (-48.3%)	-1.318	0.067	-7.8%	0.4%	6.885	83.9%
-0.975 (-4.3%)	-0.664	-0.009	-2.9%	0.0%	0.311	31.9%

The present U.S. total jobs count of 152.0 million is still a little short (i.e., by half a million) of what it was in February 2020, before the arrival of the coronavirus. Construction, though, has recovered all its job losses of Spring 2020. ... As an indicator of a full restoration of 'normalcy', leisure & hospitality is perhaps the sector to watch most carefully. Its present jobs claw-back ratio of 83.9% still has a ways to go to reach 100.0%.

Data source: Bureau of Labor Statistics (BLS)/Table: ConstructConnect.

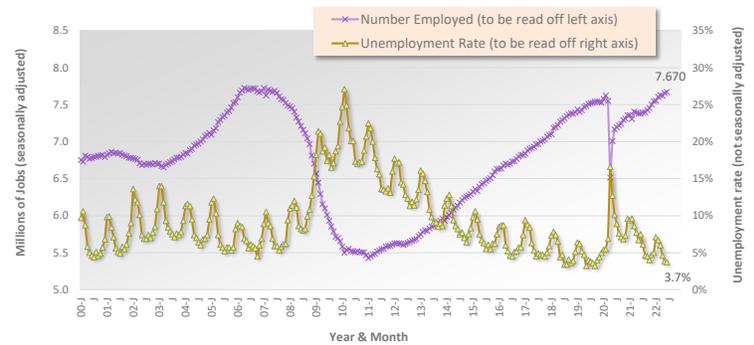
GRAPH 2: U.S. EMPLOYMENT JUNE 2022 — % CHANGE Y/Y BASED ON SEASONALLY ADJUSTED (SA) DATA



The latest data points are for June, 2022.

Data source: Payroll Survey, Bureau of Labor Statistics (U.S. Department of Labor)/Chart: ConstructConnect.

GRAPH 4: U.S. CONSTRUCTION EMPLOYMENT (SA) & UNEMPLOYMENT RATE (NSA)



Current through June, 2022. SA is seasonally adjusted / NSA is not seasonally adjusted.

Current through June, 2022. SA is seasonally adjusted / NSA is not seasonally adjusted.

The U.S. economy as a whole has now recovered 97.6% of its big jobs loss experienced from Feb-Apr 2020. Construction, as a subset, has done better with a commendable jobs 'clawback' ratio of 104.2%.

Current through June, 2022. SA is seasonally adjusted / NSA is not seasonally adjusted.

Data source: Bureau of Labor Statistics (BLS)/Chart: ConstructConnect.

Continued from page 3

monthly Employment Situation report is slightly more than 5.0%. To claim its proportional share of June's economy-wide number-of-jobs increase, +372,000, the figure for construction would have needed to be +19,000. Instead, it was weaker at +13,000. Nevertheless, the year-to-date monthly average of construction employment is now +21,000 jobs versus +3,000 in H1 2021. In June 2022, nonresidential sub-contractors accounted for almost all (+11,000) of the month-to-month climb in the total construction jobs count.

Rarely does construction as a subset record a not seasonally adjusted (NSA) unemployment rate that is lower than for all jobs, but that's what happened in June, 3.7% compared with 3.8%. In June a year ago, construction was looking at an NSA U rate that was twice as high, 7.5%.

The construction sector has recovered all the jobs (104.2%) it shed between February and April 2020 when the coronavirus initially sent the economy reeling. The jobs claw-back ratio for all jobs (97.6%), though, isn't all the way back yet. Manufacturing is at 100.9%. As for year-over-year jobs-count percentage changes, neither manufacturing, +4.1%, nor construction, +4.0%, are doing quite as well as 'all jobs', +4.3%. But the +4.3% is being boosted by the sector that fell into the deepest hole in Spring 2020, 'leisure and hospitality', where the number of jobs in latest June was +11.5% y/y.

In other segments of the economy with close ties to construction, the latest y/y percentage changes in employment have been as follows: oil and gas exploration and development, +19.8%; machinery and equipment rental and leasing, +10.3%; architectural and engineering design services, +6.1%; real estate, +3.9%; cement and concrete product manufacturing, +3.4%; and building materials and supplies dealers, -2.5%. Only the latter is disappointingly downbeat.

Design services work leads into later onsite activity. Therefore, the +6.1% increase for design services jobs is a positive read on the prospects for future hardhat employment. Furthermore, the latest (May 2022) Architecture Billings Index (ABI) from the American Institute of Architects (AIA), which provides a gauge of the demand for construction design services, stayed healthy at 53.5, above the 50.0 benchmark figure that separates more sales from less, month to month.

**Pluses and Minuses among Type of Structure Sub-categories**

June 2022's -24.3% month-to-month (m/m) decline in total nonresidential starts originated mainly in the industrial type-of-structure category (-40.0%), with substantial pull-backs also occurring in institutional (-28.2%) and commercial (-24.6%). By comparison, engineering's drop (-8.7%) appears minor.

The +14.5% jump in total nonresidential starts, June of this year versus June of last year (y/y), was owing to bumps in industrial (+585.3) and engineering (+23.1%), as both commercial (-24.5%) and institutional (-24.4%) were down by a quarter.

As for June's year-to-date (ytd) step forward of +27.2% for total nonresidential starts, it centered on industrial (+315.9%) and engineering (+24.4%), as both commercial (+0.8%) and institutional (+1.9%) have shown little forward progress.

There are two dominant sub-categories of total nonresidential starts. When the volumes of 'roads/highways' and 'schools/colleges' are added together, they accounted for nearly one-third of total year-to-date nonresidential activity in June 2022 (i.e., shares of 17.5% and 14.4% respectively, summing to 31.9%).

The three percentage-change metrics for street starts in June 2022 were -14.4% m/m, but +20.2% y/y and +30.3% ytd. Educational facility starts were -2.6% m/m and -7.4% y/y, but +9.6% ytd. Dissecting school starts further, there have been good year-to-date improvements at the levels of 'colleges and universities', +35.8%, and 'pre-school and elementary', +13.6%.

Also important within the engineering sub-category are 'water/sewage' and 'bridge' starts, and they have had fine, verging on stellar, year-to-date performances, +22.7% and

**TABLE 3: CONSTRUCTION STARTS IN SOME ADDITIONAL TYPE OF STRUCTURE SUB-CATEGORIES — ConstructConnect®**

	Jan-Jun 2022 (\$ billions)	% Change vs Jan-Jun 2021
Sports Stadiums/Convention Centers	\$2.836	8.4%
Transportation Terminals	\$3.262	28.8%
Courthouses	\$0.739	-41.5%
Police Stations & Fire Halls	\$1.686	9.6%
Prisons	\$1.101	1.6%
Pre-School/Elementary	\$11.569	13.6%
Junior & Senior High Schools	\$14.753	-4.0%
<b>K-12 (sum of above two categories)</b>	<b>\$26.322</b>	<b>3.0%</b>
Special & Vocational Schools	\$0.872	-12.8%
Colleges & Universities	\$10.010	35.8%
Electric Power Infrastructure	\$5.194	17.2%

Source: ConstructConnect/Table: ConstructConnect.

**GRAPH 5: U.S. CONSTRUCTION JOB OPENINGS (FROM JOLTS REPORT) (3-MONTH MOVING AVERAGES PLACED IN LATEST MONTH)**



The JOLTS openings figures, level and rate, keep soaring. There's much talk of a looming recession in the general economy, but JOLTS 'openings' are showing no indication (yet) that a turnaround in the construction sector is in the cards.

\*Rate is number of job openings end-of-month as % of 'construction employment plus number of job openings'. Latest seasonally adjusted data points are for May 2022. ... JOLTS = Job Openings and Labor Turnover Survey.

Data source: Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

**GRAPH 6: U.S. CONSTRUCTION JOB HIRES (FROM JOLTS REPORT) (3-MONTH MOVING AVERAGES PLACED IN LATEST MONTH)**



As strong as openings are, however, little success is being achieved in filling vacant positions. The JOLTS 'hires' numbers, level and rate, remain weak. This isn't a problem limited to construction. It extends across many sectors.

\*Rate is number of hires during month as % of construction employment.

Latest seasonally adjusted data points are for May 2022. ... JOLTS = Job Openings and Labor Turnover Survey.

Data source: Bureau of Labor Statistics (Dept of Labor)/Chart: ConstructConnect.

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+46.6% respectively.

For the three medical sub-categories combined - i.e., 'hospital/clinic', 'nursing/assisted living' and 'miscellaneous medical' - June 2022's starts were distressingly weak, -67.9% m/m, -47.9% y/y and -8.6% ytd. 'Hospital/clinic' starts on their own, though, are holding up okay year to date, -0.8%. (There were three big hospital project ground-breakings a month ago in May.)

Among commercial starts in June, notable year-to-date increases have been recorded by 'miscellaneous', +18.4%, and 'government offices', +19.2%. 'Miscellaneous' includes 'transportation terminal' starts which, on their own, are +28.8% ytd. Three sub-categories, which have experienced rough rides over the last several years, are showing small year-to-date revivals: 'retail/shopping', +8.6%; 'private office buildings', +5.7%; and 'hotels/motels', +2.3%. New 'warehouse' construction, at -26.0% ytd for starts, has been put on the back burner.

**Trend Graphs Offer Encouragement**

Page 9 of this Industry Snapshot sets out the history, January 2005 to the present, of 12-month moving starts averages for a dozen construction types-of-structure. The moving average (placed in the latest month) approach is designed to capture trends.

All the graphs appear somewhat encouraging. There are a few sideways movements in the latest month (i.e., for 'retail', 'schools/colleges' and 'hospitals/clinics'), but in nearly all other instances, recent upticks in the curves prevail.

**JOLTS Dilemma Persists**

For ease of viewing, Graphs 5 and 6 show 'smoothed' curves (i.e., based on three-month moving averages, placed in the latest month) for the Job Openings and Labor Turnover Survey (JOLTS) results pertaining to construction industry 'openings' and 'hires'.

'Openings' in construction have reached new peaks (both as a level and rate), but the 'hires' figures (level and rate) are staying mostly low and flat. The construction sector is in a contest with most other sectors throughout the economy to fill positions amidst a severe available worker shortage.

If compensation is a deciding factor in signings, construction may have once been lagging a bit in its offerings, but as the next section spotlights, that no longer seems to be the case.

**Weekly Wages Surge**

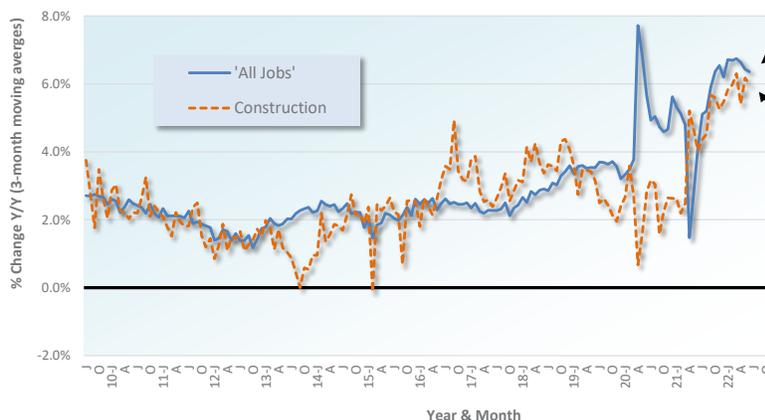
Tables B-3 and B-8 of the monthly *Employment Situation* report, from the BLS, record average hourly and average weekly wages for industry sectors. B-3 is for all employees (i.e., including bosses) on non-farm payrolls. B-8 is for 'production and non-supervisory personnel' only (i.e., it excludes bosses). For 'all jobs' and construction, there are eight percentage changes to spotlight.

From June 2022's Table B-3 (including bosses), year-over-year all-jobs earnings were +5.1% hourly and +4.2% weekly. Construction workers, as a subset of 'all jobs', were out front on both counts, +5.6% hourly and +5.8% weekly. From Table B-8 for production and non-supervisory workers (i.e., excluding bosses), the all-jobs compensation hikes were +6.4% hourly and +5.4% weekly. Construction workers fell a little behind hourly, +6.0%, but leapt ahead weekly, +7.3%.

**Some Lifting of the Material Cost Burden**

May 2022's y/y results for three building related

GRAPH 7: AVERAGE HOURLY EARNINGS Y/Y — 'ALL JOBS' & CONSTRUCTION



**'All Jobs'**  
June 2022 = +6.4% y/y  
----  
Latest 3-month avg = +6.5% y/y

**Construction**  
June 2022 = +6.0% y/y  
----  
Latest 3-month avg = +5.9% y/y

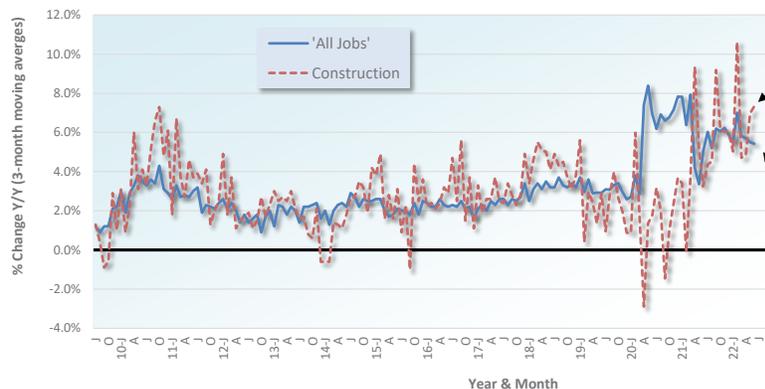
Even at +6.4% y/y, hourly wages aren't matching the rapid pace of CPI-U inflation, +8.6% y/y in May 2022. The average annual increase for 'construction workers' from 2010 to 2019 was +2.3%; for 'all jobs' over the same period, +2.4% .

From 'Production Workers and Non-supervisory Personnel' Table (B8).

The latest data points are for June, 2022.

Data Source: Bureau of Labor Statistics (BLS)'s Employment Situation report/Chart: ConstructConnect.

GRAPH 8: AVERAGE WEEKLY EARNINGS Y/Y — 'ALL JOBS' & CONSTRUCTION



**Construction**  
June 2022 = +7.3% y/y  
----  
Latest 3-month avg = +6.4% y/y

**'All Jobs'**  
June 2022 = +5.4% y/y  
----  
Latest 3-month avg = +5.5% y/y

The y/y increase in weekly wages paid to construction workers soared in February 2022, +10.6%. It has since settled back a bit. Presently (and unusually), the NSA unemployment rate in construction of 3.7% is under the 'all jobs' NSA U rate of 3.8%.

From 'Production Workers and Non-supervisory Personnel' Table (B8).

The latest data points are for June, 2022.

Data Source: Bureau of Labor Statistics (BLS)'s Employment Situation report/Chart: ConstructConnect.

BLS Producer Price Index (PPI) series were: (A) 'construction materials special index', +15.7% (an easing from April's +17.8%); (B) 'inputs to new construction index, excluding capital investment, labor, and imports', +17.0% (under the previous month's advance of +20.7%); and (C) 'final demand construction', designed to capture bid prices, +19.0% (not quite as bullish as April's +19.3%).

(A) comes from a data series with a long history, but it's confined to a limited number of major construction materials. (B) has a shorter history, but it's more comprehensive in its coverage, although it includes some items (e.g., transportation) that aren't strictly materials.

What's important to know, though, is that the y/y change in the bid price index (+19.0%) has caught up with, and moved beyond, the average y/y change for the two material input cost indices ((15.7% + 17.0%)/2

= +16.4%). There were times around a year into the pandemic when contractors weren't remotely adjusting their prices enough to recover material cost increases.

Concerning the cost of some major construction material inputs, as revealed in the PPI data set published by the BLS, diesel fuel is +84.9% y/y; asphalt, +80.5%; hot rolled steel bars, plates, and structural shapes, +36.8%; aluminum sheet and strip, +28.4%; gypsum, +22.6%; ready-mix concrete, +9.5%; copper wire and cable, +8.2%; cement, +6.8%; and softwood lumber, -21.7%. There's also an 'inputs to highways and streets' PPI index and it's +19.6% y/y.

The value of construction starts each month is derived from ConstructConnect's database of all active construction projects in the U.S. Missing project values are estimated with the help of RSMeans' building cost models. ConstructConnect's non-resi-

Continued on page 6

Continued from page 5

dential construction starts series, because it is comprised of total-value estimates for individual projects, some of which are super-large, has a history of being more volatile than many other leading indicators for the economy.

**June 2022's 'Grand Total' Starts +14.8% Ytd**

From Table 10 on page 11 of this report, ConstructConnect's total residential starts in June 2022 were +12.1% m/m, -9.4% y/y, and +0.7% ytd. Multi-family starts in June were -13.6% m/m, -32.4% y/y and -1.0% ytd. Single-family starts were +20.7% m/m, -1.5% y/y and +1.3% ytd.

Including home building with all nonresidential categories, **Grand Total** starts in June 2022 were -13.1% m/m, but +3.6% y/y and +14.8% ytd.

ConstructConnect adopts a research-assigned 'start' date. In concept, a 'start' is equivalent to ground being broken for a project to proceed. If work is abandoned or re-bid, the 'start' date is revised to reflect the new information.

**Global Energy Cost Spread Creates Opportunities for North American Manufacturing**

The year 2022 marks at least the fourth time since 2007 that Russia has used energy shipments as leverage to achieve a political objective across one or more European nations, according to research conducted by Rice University's Baker Institute for Public Policy. What is unique in this latest bout, however, is the scope of nations involved in the dispute. Among them are France, which as of mid-June was no longer receiving any natural gas from Russia, and Germany, which is receiving only reduced supplies and faces the threat of having no heating gas going into the winter. Most blatantly, in May Russia halted all gas exports to Finland just days after that country announced its intention to join NATO.

These actions along with the threat of future escalations have placed a dark cloud over Europe's economic outlook for the foreseeable future. EU natural gas import prices at the end of June were \$34.35 per million BTUs, a 3-fold increase from a year-ago (\$10.30) and up nearly 19-fold over the past two years (\$1.75) according to data from the World Bank. For Building Product Manufacturers (BPMs) in North America who are paying only a minor fraction of the price for energy as their European peers, this presents an opportunity to supply goods and, in particular, energy-intensive goods to a welcoming geographic market looking for lower costs. While the overall situation in Europe is entirely regrettable, the region's energy and production constraints are creating a unique opportunity for North American firms.

*Michael Guckes, Senior Economist*

**Expansion Index Monitors Construction Prospects**

A rule of thumb is that nonresidential construction is a lagging indicator among economic measures. Companies are hesitant to undertake capital spending until their personnel needs are rapidly expanding and their office square footage or plant footprints are straining capacity. Plus, it helps if profits are abundant. Also, today's greater tendency to work from home has made office occupancy and resulting need for construction much more difficult to assess. The 'rule', however, may not hold true under the present circumstances, with a rich deposit of large industrial and engineering construction projects to be mined.

Each month, ConstructConnect publishes information on upcoming construction projects at its *Expansion Index* web location, to be found by clicking on this link, <https://www.construct-connect.com/expansion-index>

The *Expansion Index*, for hundreds of cities in the U.S. and Canada, calculates the ratio, based on dollar volume, of projects in the planning stage, at present, divided by the comparable figure a year ago. The ratio moves above 1.0 when there is currently a larger dollar volume of construction 'prospects' than there was last year at the same time. The ratio sinks below 1.0 when the opposite is the case. The results are set out in interactive maps for both countries.

TABLE 4: 2022 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jun 2022	% Change vs Jan-Jun 2021
1 Texas	\$44,244,080,820	78.4%
2 California	\$18,183,142,462	0.0%
3 Louisiana	\$14,559,405,151	437.8%
4 New York	\$14,168,260,565	35.8%
5 Florida	\$12,220,230,500	8.9%
6 North Carolina	\$9,727,312,928	34.3%
7 Kentucky	\$8,927,747,390	340.7%
8 Pennsylvania	\$8,277,109,888	9.8%
9 Illinois	\$8,226,517,315	18.8%
10 Indiana	\$7,540,426,576	70.3%
11 Georgia	\$6,849,468,680	-1.4%
12 Ohio	\$6,610,445,269	-22.1%
13 Michigan	\$6,518,292,611	26.1%
14 Wisconsin	\$5,076,785,600	18.1%
15 Virginia	\$5,070,388,799	5.4%
16 Minnesota	\$4,962,065,396	-22.2%
17 New Jersey	\$4,804,512,080	25.9%
18 Massachusetts	\$4,494,817,943	0.9%
19 Washington	\$4,189,299,197	-3.6%
20 Missouri	\$4,155,899,872	-16.7%

Figures are comprised of non-res building & engineering (residential is omitted).

TABLE 5: 2022 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF NONRESIDENTIAL BUILDING CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jun 2022	% Change vs Jan-Jun 2021
1 Texas	\$31,882,215,105	105.9%
2 Louisiana	\$12,531,850,894	601.0%
3 California	\$10,689,203,685	-1.1%
4 New York	\$8,168,071,369	33.9%
5 Kentucky	\$7,768,278,174	577.3%
6 Florida	\$7,552,776,802	5.1%
7 North Carolina	\$6,682,355,616	21.6%
8 Georgia	\$4,959,090,855	3.9%
9 Indiana	\$4,725,899,989	88.1%
10 Pennsylvania	\$4,598,874,917	-13.6%
11 Illinois	\$4,038,612,413	12.6%
12 Ohio	\$3,528,143,923	-37.1%
13 Massachusetts	\$3,246,388,752	5.5%
14 Michigan	\$3,066,709,794	21.6%
15 Wisconsin	\$2,883,345,634	37.5%
16 Virginia	\$2,810,844,948	-18.8%
17 Maryland	\$2,722,650,493	48.6%
18 Maine	\$2,282,278,736	325.3%
19 Missouri	\$2,121,394,442	-35.4%
20 Alabama	\$2,092,179,732	-0.1%

TABLE 6: 2022 YTD RANKING OF TOP 20 STATES BY \$ VOLUME OF HEAVY ENGINEERING/CIVIL CONSTRUCTION STARTS — ConstructConnect®

	Jan-Jun 2022	% Change vs Jan-Jun 2021
1 Texas	\$12,361,865,715	32.8%
2 California	\$7,493,938,777	1.7%
3 New York	\$6,000,189,196	38.5%
4 Florida	\$4,667,453,698	15.6%
5 Illinois	\$4,187,904,902	25.5%
6 Pennsylvania	\$3,678,234,971	65.9%
7 Michigan	\$3,451,582,817	30.5%
8 Minnesota	\$3,347,944,904	-29.0%
9 Ohio	\$3,082,301,346	7.1%
10 North Carolina	\$3,044,957,312	74.3%
11 New Jersey	\$2,947,512,101	120.8%
12 Indiana	\$2,814,526,587	47.0%
13 Washington	\$2,466,548,329	60.1%
14 Virginia	\$2,259,543,851	67.8%
15 Wisconsin	\$2,193,439,966	-0.4%
16 Missouri	\$2,034,505,430	19.1%
17 Louisiana	\$2,027,554,257	120.6%
18 Colorado	\$1,985,161,754	40.7%
19 Georgia	\$1,890,377,825	-13.0%
20 Iowa	\$1,825,277,325	23.9%

Data source and Tables: ConstructConnect.

Alex Carrick is Chief Economist for ConstructConnect. He has delivered presentations throughout North America on the U.S., Canadian and world construction outlooks. Mr. Carrick has been with the company since 1985. Links to his numerous articles are featured on [Twitter @ConstructConnx](#), which has 50,000 followers.

# INSIGHT view of starts statistics

TABLE 7: VALUE OF UNITED STATES CONSTRUCTION STARTS  
ConstructConnect® INSIGHT VERSION — JUNE 2022  
ARRANGED TO MATCH THE ALPHABETICAL CATEGORY DROP-DOWN MENUS IN INSIGHT

	Jan-Jun 2022 (\$ billions)	% Change Jan-Jun 22 vs Jan-Jun 21	% Change Jun 22 vs Jun 21	% Change Jun 22 vs May 22
<b>Summary</b>				
CIVIL	100.140	24.4%	23.1%	-8.7%
NONRESIDENTIAL BUILDING	158.834	29.0%	9.6%	-31.7%
RESIDENTIAL	179.548	0.7%	-9.4%	12.1%
<b>GRAND TOTAL</b>	<b>438.522</b>	<b>14.8%</b>	<b>3.6%</b>	<b>-13.1%</b>
<b>Verticals</b>				
Airport	3.153	20.1%	-31.7%	-40.4%
All Other Civil	6.716	-15.9%	1.4%	12.9%
Bridges	14.904	46.6%	61.0%	-12.4%
Dams / Canals / Marine Work	3.504	13.3%	-36.0%	-40.9%
Power Infrastructure	5.194	17.2%	102.6%	133.7%
Roads	45.468	30.3%	20.2%	-14.4%
Water and Sewage Treatment	21.200	22.7%	31.7%	-3.0%
<b>CIVIL</b>	<b>100.140</b>	<b>24.4%</b>	<b>23.1%</b>	<b>-8.7%</b>
Offices (private)	8.905	5.7%	45.1%	59.8%
Parking Garages	1.076	9.7%	14.6%	93.2%
Transportation Terminals	3.262	28.8%	-91.9%	-91.8%
<b>Commercial (small subset)</b>	<b>13.243</b>	<b>10.9%</b>	<b>-34.4%</b>	<b>-30.3%</b>
Amusement	3.233	4.4%	-39.9%	-4.6%
Libraries / Museums	1.580	19.5%	-38.1%	-40.6%
Religious	0.450	-19.5%	-1.4%	16.0%
Sports Arenas / Convention Centers	2.836	8.4%	-41.7%	-60.2%
<b>Community</b>	<b>8.099</b>	<b>6.6%</b>	<b>-38.4%</b>	<b>-41.0%</b>
College / University	10.010	35.8%	-24.3%	-59.3%
Elementary / Pre School	11.569	13.6%	-7.9%	14.6%
Jr / Sr High School	14.753	-4.0%	3.8%	45.5%
Special / Vocational	0.872	-12.8%	-57.6%	-50.6%
<b>Educational</b>	<b>37.204</b>	<b>9.6%</b>	<b>-7.4%</b>	<b>-2.6%</b>
Courthouses	0.739	-41.5%	-62.4%	23.4%
Fire and Police Stations	1.686	9.6%	50.9%	21.9%
Government Offices	6.086	19.2%	75.0%	9.0%
Prisons	1.101	1.6%	-35.7%	-28.9%
<b>Government</b>	<b>9.611</b>	<b>6.9%</b>	<b>22.8%</b>	<b>7.3%</b>
Industrial Labs / Labs / School Labs	1.784	70.3%	167.3%	125.9%
Manufacturing	44.801	315.9%	585.3%	-40.0%
Warehouses	10.400	-26.0%	-42.6%	-35.4%
<b>Industrial</b>	<b>56.985</b>	<b>120.2%</b>	<b>191.6%</b>	<b>-37.5%</b>
Hospitals / Clinics	9.916	-0.8%	-49.9%	-79.2%
Medical Misc.	3.505	-1.8%	-27.9%	-35.0%
Nursing Homes	1.821	-41.5%	-60.7%	96.7%
<b>Medical</b>	<b>15.242</b>	<b>-8.6%</b>	<b>-47.9%</b>	<b>-67.9%</b>
<b>Military</b>	<b>3.784</b>	<b>-11.4%</b>	<b>-68.3%</b>	<b>-2.1%</b>
Hotels	3.710	2.3%	-26.1%	1.8%
Retail Misc.	3.289	3.2%	6.7%	-12.8%
Shopping	7.666	8.6%	-32.1%	-37.7%
<b>Retail</b>	<b>14.665</b>	<b>5.7%</b>	<b>-23.7%</b>	<b>-24.1%</b>
<b>NONRESIDENTIAL BUILDING</b>	<b>158.834</b>	<b>29.0%</b>	<b>9.6%</b>	<b>-31.7%</b>
Multi-Family	49.080	-1.0%	-32.4%	-13.6%
Single-Family	130.468	1.3%	-1.5%	20.7%
<b>RESIDENTIAL</b>	<b>179.548</b>	<b>0.7%</b>	<b>-9.4%</b>	<b>12.1%</b>
<b>NONRESIDENTIAL</b>	<b>258.974</b>	<b>27.2%</b>	<b>14.5%</b>	<b>-24.3%</b>
<b>GRAND TOTAL</b>	<b>438.522</b>	<b>14.8%</b>	<b>3.6%</b>	<b>-13.1%</b>

Table 1 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks nonresidential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 7 presents an alternative, perhaps more user-friendly and intuitive type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source: ConstructConnect/Table: ConstructConnect.

## “Top Ten” projects of the month

TABLE 8: ConstructConnect’s TOP 10 PROJECT STARTS IN JUNE 2022

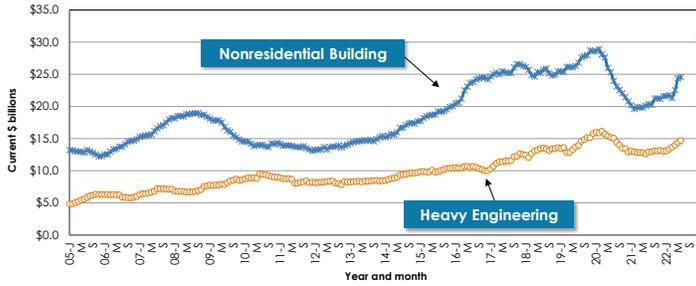
LOCATION (EAST TO WEST)	TYPE OF CONSTRUCTION	DESCRIPTION	SQUARE FEET 000S*	DOLLARS 000,000S
<b>New York</b> New York	Industrial	Harlem Hospital Public Health Lab (2 structures; 10 stories) 506 Lenox Ave New York City Economic Development Corporation (NYCEDC)	235	\$448
<b>District of Columbia</b> Washington	Civil/Engineering	Washington Metro Area Transit Authority (WMATA) Station Platform Rehabilitation Program, Contract 4 (2 structures) Multiple Locations Washington Metro Area Transit Authority (WMATA)	*	\$450
<b>North Carolina</b> New Hill	Industrial	Triangle Innovation Point West (1 structure) 338 Pea Ridge Rd Lee-Moore Capital Company	3,200	\$500
Statesville	Industrial	NC Park 4077 Building 4 (1 structure) Crawford Rd & Odessa Dr NorthPoint Development - Cincinnati Office	590	\$432
<b>Georgia</b> Bainbridge	Industrial	Danimer Scientific Addition (2 structures) 140 Industrial Blvd Danimer Scientific	2,000	\$700
<b>Florida</b> Apopka	Industrial	Apopka 429 (3 structures) 4670 W Orange Blossom Trail Blue Steel Development LLC	2,501	\$1,000
<b>Ohio</b> New Albany	Commercial	Facebook / Meta - Data Center Expansion / New Albany (3 structures) Beech Rd & Rte 161 Facebook / Meta	1,000	\$750
<b>Kentucky</b> Glendale	Industrial	BlueOvalSK Battery Park - Ford Motor Company (2 structures) 1 BlueOval Ford Motor Company World Headquarters	5,000	\$5,800
<b>Texas</b> Beaumont	Civil/Engineering	Arbor Renewable Gas Facility - Spindletop Plant (2 structures) 6690 TX-347 Arbor Renewable Gas	*	\$1,000
<b>Oregon</b> Tualatin	Civil/Engineering	Willamette Water Supply System Water Treatment Plant (1 structure) SW 124th Ave & SW Tualatin-Sherwood Rd Tualatin Valley Water District	*	\$500
<b>TOTALS:</b>			<b>14,526</b>	<b>\$11,580</b>

\*A square footage measure does not apply for alteration, some forms of industrial (e.g., petrochemical) and most engineering/civil work.

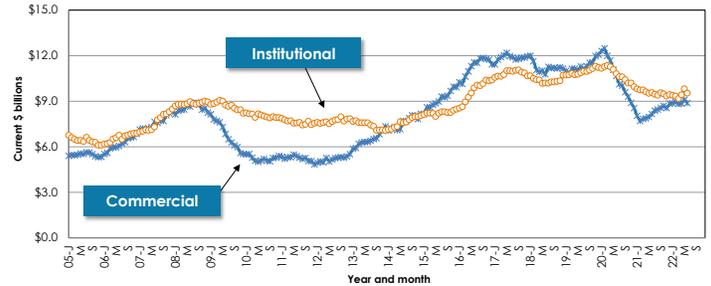
Source: ConstructConnect/Table: ConstructConnect.

## Trend graphs for 12 key categories

**GRAPH 9: U.S. NONRESIDENTIAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



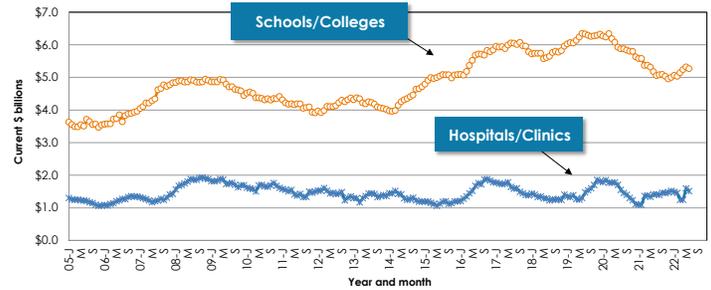
**GRAPH 10: U.S. COMMERCIAL AND INSTITUTIONAL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



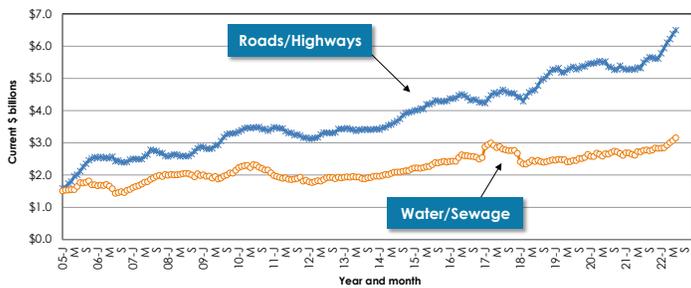
**GRAPH 11: U.S. RETAIL AND PRIVATE OFFICE BUILDING CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



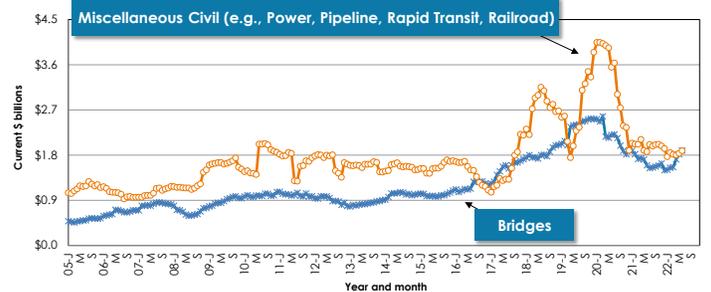
**GRAPH 12: U.S. HOSPITAL/CLINIC AND SCHOOL/COLLEGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



**GRAPH 13: U.S. ROAD/HIGHWAY AND WATER/SEWAGE CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



**GRAPH 14: U.S. BRIDGES AND MISCELLANEOUS CIVIL CONSTRUCTION STARTS — ConstructConnect® (12-MONTH MOVING AVERAGES)**



The last data points in all the graphs on this page are for June, 2022.

Source: ConstructConnect/Charts: ConstructConnect.

## Regional starts table

TABLE 9: U.S. YEAR-TO-DATE REGIONAL STARTS, NONRESIDENTIAL CONSTRUCTION\* — ConstructConnect®

	Jan-Jun 2021	Jan-Jun 2022	% Change
Connecticut	\$1,304,001,140	\$1,230,752,881	-5.6%
Maine	\$2,134,835,179	\$2,732,648,892	28.0%
Massachusetts	\$4,453,511,865	\$4,494,817,943	0.9%
New Hampshire	\$933,462,496	\$445,221,755	-52.3%
Rhode Island	\$606,260,254	\$636,158,102	4.9%
Vermont	\$260,291,959	\$332,598,140	27.8%
<b>Total New England</b>	<b>\$9,692,362,893</b>	<b>\$9,872,197,713</b>	<b>1.9%</b>
New Jersey	\$3,816,622,160	\$4,804,512,080	25.9%
New York	\$10,433,809,267	\$14,168,260,565	35.8%
Pennsylvania	\$7,540,139,061	\$8,277,109,888	9.8%
<b>Total Middle Atlantic</b>	<b>\$21,790,570,488</b>	<b>\$27,249,882,533</b>	<b>25.1%</b>
<b>TOTAL NORTHEAST</b>	<b>\$31,482,933,381</b>	<b>\$37,122,080,246</b>	<b>17.9%</b>
Illinois	\$6,924,015,988	\$8,226,517,315	18.8%
Indiana	\$4,428,201,411	\$7,540,426,576	70.3%
Michigan	\$5,168,054,920	\$6,518,292,611	26.1%
Ohio	\$8,486,839,980	\$6,610,445,269	-22.1%
Wisconsin	\$4,299,919,851	\$5,076,785,600	18.1%
<b>Total East North Central</b>	<b>\$29,307,032,150</b>	<b>\$33,972,467,371</b>	<b>15.9%</b>
Iowa	\$3,178,353,782	\$2,954,057,696	-7.1%
Kansas	\$1,823,251,447	\$2,867,952,840	57.3%
Minnesota	\$6,378,885,613	\$4,962,065,396	-22.2%
Missouri	\$4,991,024,242	\$4,155,899,872	-16.7%
Nebraska	\$2,092,050,077	\$2,782,918,597	33.0%
North Dakota	\$1,247,966,300	\$2,366,773,016	89.7%
South Dakota	\$914,755,326	\$2,161,774,093	136.3%
<b>Total West North Central</b>	<b>\$20,626,286,787</b>	<b>\$22,251,441,510</b>	<b>7.9%</b>
<b>TOTAL MIDWEST</b>	<b>\$49,933,318,937</b>	<b>\$56,223,908,881</b>	<b>12.6%</b>
Delaware	\$635,812,764	\$503,515,447	-20.8%
District of Columbia	\$485,642,124	\$1,245,339,024	156.4%
Florida	\$11,226,247,146	\$12,220,230,500	8.9%
Georgia	\$6,948,009,179	\$6,849,468,680	-1.4%
Maryland	\$2,356,018,265	\$3,905,984,950	65.8%
North Carolina	\$7,241,746,693	\$9,727,312,928	34.3%
South Carolina	\$2,857,849,077	\$3,427,587,173	19.9%
Virginia	\$4,808,620,715	\$5,070,388,799	5.4%
West Virginia	\$607,387,541	\$1,038,976,968	71.1%
<b>Total South Atlantic</b>	<b>\$37,167,333,504</b>	<b>\$43,988,804,469</b>	<b>18.4%</b>
Alabama	\$3,083,107,027	\$3,385,179,002	9.8%
Kentucky	\$2,025,901,475	\$8,927,747,390	340.7%
Mississippi	\$992,417,378	\$1,422,805,724	43.4%
Tennessee	\$5,850,174,183	\$3,477,667,057	-40.6%
<b>Total East South Central</b>	<b>\$11,951,600,063</b>	<b>\$17,213,399,173</b>	<b>44.0%</b>
Arkansas	\$1,313,899,432	\$1,415,748,061	7.8%
Louisiana	\$2,707,066,466	\$14,559,405,151	437.8%
Oklahoma	\$2,265,825,502	\$2,545,233,422	12.3%
Texas	\$24,796,804,065	\$44,244,080,820	78.4%
<b>Total West South Central</b>	<b>\$31,083,595,465</b>	<b>\$62,764,467,454</b>	<b>101.9%</b>
<b>TOTAL SOUTH</b>	<b>\$80,202,529,032</b>	<b>\$123,966,671,096</b>	<b>54.6%</b>
Arizona	\$3,622,611,697	\$2,619,105,242	-27.7%
Colorado	\$3,601,305,000	\$3,414,965,007	-5.2%
Idaho	\$695,046,745	\$1,081,392,147	55.6%
Montana	\$574,489,155	\$951,198,836	65.6%
Nevada	\$2,219,318,399	\$2,181,148,558	-1.7%
New Mexico	\$980,435,430	\$1,027,146,773	4.8%
Utah	\$3,213,168,154	\$2,754,434,005	-14.3%
Wyoming	\$615,833,799	\$865,857,544	40.6%
<b>Total Mountain</b>	<b>\$15,522,208,379</b>	<b>\$14,895,248,112</b>	<b>-4.0%</b>
Alaska	\$619,688,711	\$710,538,920	14.7%
California	\$18,178,441,702	\$18,183,142,462	0.0%
Hawaii	\$852,147,771	\$553,693,008	-35.0%
Oregon	\$2,495,095,678	\$3,129,314,384	25.4%
Washington	\$4,346,885,691	\$4,189,299,197	-3.6%
<b>Total Pacific</b>	<b>\$26,492,259,553</b>	<b>\$26,765,987,971</b>	<b>1.0%</b>
<b>TOTAL WEST</b>	<b>\$42,014,467,932</b>	<b>\$41,661,236,083</b>	<b>-0.8%</b>
<b>TOTAL U.S.</b>	<b>\$203,633,249,282</b>	<b>\$258,973,896,306</b>	<b>27.2%</b>

\*Figures above are comprised of non-res building and engineering (i.e., residential is omitted).

Source: ConstructConnect/Table: ConstructConnect.

# Detailed national table

TABLE 10: VALUE OF U.S. NATIONAL CONSTRUCTION STARTS — JUNE 2022 — ConstructConnect®  
BILLIONS OF CURRENT \$\$, NOT SEASONALLY ADJUSTED (NSA)

	Latest month actuals			Moving averages (placed in end month)						Year to Date	
	Apr 22	May 22	Jun 22	Apr 22	May 22	Jun 22	Apr 22	May 22	Jun 22	Jan-Jun 2021	Jan-Jun 2022
<b>Single Family</b>	24,039	20,898	25,217	21,861	22,403	23,385	21,822	21,649	21,618	128,751	130,468
month-over-month % change	7.9%	-13.1%	20.7%	8.7%	2.5%	4.4%	0.7%	-0.8%	-0.1%		
year-over-year % change	8.0%	-9.1%	-1.5%	4.8%	-2.2%	-1.0%	10.3%	5.7%	2.8%	34.7%	1.3%
<b>Apartment</b>	11,202	6,930	5,986	8,926	8,877	8,039	8,685	8,595	8,356	49,600	49,080
month-over-month % change	31.8%	-38.1%	-13.6%	7.3%	-0.5%	-9.4%	0.5%	-1.0%	-2.8%		
year-over-year % change	5.2%	-13.4%	-32.4%	-0.2%	0.5%	-12.3%	18.0%	14.8%	10.0%	22.3%	-1.0%
<b>TOTAL RESIDENTIAL</b>	35,240	27,828	31,203	30,787	31,281	31,424	30,507	30,244	29,974	178,350	179,548
month-over-month % change	14.5%	-21.0%	12.1%	8.3%	1.6%	0.5%	0.6%	-0.9%	-0.9%		
year-over-year % change	7.1%	-10.2%	-9.4%	3.3%	-1.4%	-4.1%	12.4%	8.2%	4.7%	31.0%	0.7%
<b>Hotel/Motel</b>	0.403	0.638	0.649	0.548	0.586	0.563	0.630	0.623	0.604	3,628	3,710
month-over-month % change	-43.9%	58.3%	1.8%	-18.6%	6.9%	-3.9%	-2.9%	-1.1%	-3.1%		
year-over-year % change	-35.8%	-11.8%	-26.1%	1.6%	-11.2%	-24.2%	13.0%	6.3%	-2.0%	-43.6%	2.3%
<b>Retail/Shopping</b>	1,169	1,731	1,078	1,191	1,377	1,326	1,126	1,163	1,121	7,059	7,666
month-over-month % change	-5.2%	48.1%	-37.7%	-3.2%	15.7%	-3.7%	0.2%	3.3%	-3.6%		
year-over-year % change	1.8%	34.8%	-32.1%	12.3%	14.7%	-1.0%	11.5%	11.5%	2.9%	12.7%	8.6%
<b>Parking Garages</b>	0.356	0.100	0.193	0.191	0.169	0.216	0.153	0.150	0.152	0.981	1,076
month-over-month % change	592.9%	-71.8%	93.2%	34.1%	-11.4%	28.0%	19.7%	-1.5%	1.4%		
year-over-year % change	556.5%	-21.6%	14.6%	25.7%	47.7%	85.1%	4.1%	7.3%	5.8%	-1.2%	9.7%
<b>Amusement</b>	0.510	0.440	0.420	0.685	0.525	0.457	0.589	0.581	0.558	3,097	3,233
month-over-month % change	-18.5%	-13.6%	-4.6%	10.4%	-23.4%	-13.0%	1.9%	-1.3%	-4.0%		
year-over-year % change	35.4%	-17.7%	-39.9%	42.4%	2.2%	-14.9%	25.8%	21.0%	13.1%	-11.0%	4.4%
<b>Office</b>	2,168	1,149	1,837	1,499	1,547	1,718	1,635	1,634	1,682	8,425	8,905
month-over-month % change	63.7%	-47.0%	59.8%	19.9%	3.2%	11.0%	2.1%	0.0%	2.9%		
year-over-year % change	23.2%	-0.5%	45.1%	-1.7%	3.4%	23.3%	-12.4%	-12.6%	-8.2%	-31.6%	5.7%
<b>Governmental Offices</b>	1,149	1,240	1,352	0,925	1,150	1,247	0,992	1,014	1,063	5,108	6,086
month-over-month % change	8.3%	7.9%	9.0%	18.3%	24.3%	8.4%	0.6%	2.3%	4.8%		
year-over-year % change	6.8%	28.3%	75.0%	-0.1%	17.3%	32.9%	11.7%	11.5%	18.3%	2.4%	19.2%
<b>Laboratories</b>	0.529	0.229	0.517	0.327	0.349	0.425	0.235	0.243	0.270	1,047	1,784
month-over-month % change	82.7%	-56.7%	125.9%	93.1%	6.7%	21.7%	13.4%	3.3%	11.1%		
year-over-year % change	170.3%	68.6%	167.3%	52.4%	64.7%	142.9%	27.3%	28.0%	44.2%	-9.3%	70.3%
<b>Warehouse</b>	2,420	2,159	1,396	1,823	2,072	1,992	2,118	2,104	2,018	14,056	10,400
month-over-month % change	47.8%	-10.8%	-35.4%	23.6%	13.7%	-3.9%	-3.9%	-0.6%	-4.1%		
year-over-year % change	-29.9%	-6.9%	-42.6%	-28.7%	-27.6%	-27.2%	-4.7%	-5.3%	-8.0%	0.7%	-26.0%
<b>Misc Commercial</b>	0.996	2,958	0.582	0.804	1,465	1,512	1,370	1,578	1,407	5,149	6,098
month-over-month % change	126.7%	196.9%	-80.3%	54.5%	82.1%	3.2%	2.5%	15.2%	-10.8%		
year-over-year % change	66.4%	548.8%	-77.9%	35.8%	122.6%	23.0%	160.7%	202.4%	102.2%	40.2%	18.4%
<b>TOTAL COMMERCIAL</b>	9,699	10,644	8,024	7,994	9,241	9,456	8,846	9,091	8,874	48,549	48,958
month-over-month % change	31.5%	9.7%	-24.6%	16.5%	15.6%	2.3%	0.4%	2.8%	-2.4%		
year-over-year % change	4.4%	38.2%	-24.5%	-0.7%	6.3%	2.7%	12.4%	14.2%	8.9%	-8.9%	0.8%
<b>TOTAL INDUSTRIAL (Manufacturing)</b>	12,304	16,635	9,985	5,300	10,260	12,975	3,727	4,929	5,639	10,773	44,801
month-over-month % change	568.3%	35.2%	-40.0%	170.6%	93.6%	26.5%	32.7%	32.2%	14.4%		
year-over-year % change	865.4%	649.4%	585.3%	200.2%	348.0%	686.1%	101.1%	170.6%	200.7%	7.6%	315.9%
<b>Religious</b>	0.067	0.079	0.091	0.064	0.078	0.079	0.081	0.076	0.076	0.559	0.450
month-over-month % change	-25.7%	18.1%	16.0%	-9.7%	21.6%	0.7%	-3.0%	-6.4%	-0.1%		
year-over-year % change	-31.0%	-44.1%	-1.4%	-28.0%	-32.4%	-28.3%	-27.7%	-33.2%	-31.7%	-33.9%	-19.5%
<b>Hospitals/Clinics</b>	1,123	4,750	0.989	1,182	2,418	2,287	1,252	1,599	1,517	9,991	9,916
month-over-month % change	-18.6%	322.8%	-79.2%	16.1%	104.5%	-5.4%	0.4%	27.7%	-5.1%		
year-over-year % change	5.0%	710.6%	-49.9%	-44.3%	30.4%	89.1%	-9.6%	19.5%	7.2%	57.0%	-0.8%
<b>Nursing/Assisted Living</b>	0.399	0.164	0.323	0.349	0.222	0.285	0.451	0.425	0.384	3,115	1,821
month-over-month % change	282.7%	-58.9%	96.7%	11.9%	-36.2%	32.8%	-1.7%	-5.6%	-9.8%		
year-over-year % change	-18.9%	-64.8%	-60.7%	-20.9%	-58.2%	-50.2%	-18.8%	-23.2%	-32.8%	-16.9%	-41.5%
<b>Libraries/Museums</b>	0.210	0.248	0.147	0.319	0.303	0.202	0.334	0.327	0.320	1,323	1,580
month-over-month % change	-53.4%	18.0%	-40.6%	-2.0%	-4.8%	-33.4%	2.0%	-2.1%	-2.3%		
year-over-year % change	58.8%	-25.2%	-38.1%	69.1%	28.7%	-13.7%	54.5%	51.7%	53.4%	-49.7%	19.5%
<b>Fire/Police/Courthouse/Prison</b>	0.643	0.678	0.707	0.527	0.603	0.676	0.623	0.636	0.620	3,883	3,525
month-over-month % change	31.7%	5.4%	4.3%	5.6%	14.5%	12.1%	0.6%	2.1%	-2.6%		
year-over-year % change	7.0%	30.8%	-21.8%	3.2%	14.1%	0.2%	-6.8%	-6.1%	-12.8%	13.1%	-9.2%
<b>Military</b>	2,370	0.399	0.391	0.953	1,038	1,054	0.829	0.804	0.734	4,269	3,784
month-over-month % change	586.2%	-83.2%	-2.1%	358.9%	9.0%	1.5%	27.2%	-3.0%	-8.7%		
year-over-year % change	861.5%	-42.6%	-68.3%	90.4%	68.4%	45.3%	22.6%	16.1%	-0.9%	-6.9%	-11.4%
<b>Schools/Colleges</b>	7,514	7,558	7,363	5,765	7,062	7,478	5,239	5,318	5,269	33,932	37,204
month-over-month % change	22.9%	0.6%	-2.6%	17.1%	22.5%	5.9%	1.9%	1.5%	-0.9%		
year-over-year % change	18.6%	14.3%	-7.4%	13.8%	19.3%	7.4%	-2.5%	0.1%	1.8%	-13.8%	9.6%
<b>Misc Medical</b>	0.392	0.809	0.526	0.494	0.596	0.576	0.612	0.626	0.609	3,571	3,505
month-over-month % change	-33.1%	106.1%	-35.0%	-16.6%	20.6%	-3.4%	-4.3%	2.4%	-2.7%		
year-over-year % change	-45.4%	28.1%	-27.9%	-16.6%	-1.3%	-16.9%	-3.4%	1.8%	-4.3%	-13.8%	-1.8%
<b>TOTAL INSTITUTIONAL</b>	12,719	14,685	10,537	9,653	12,321	12,647	9,420	9,812	9,528	60,643	61,786
month-over-month % change	33.1%	15.5%	-28.2%	21.4%	27.6%	2.6%	2.8%	4.2%	-2.9%		
year-over-year % change	31.2%	47.1%	-24.4%	1.5%	18.4%	12.9%	-2.0%	3.1%	-0.4%	-6.9%	1.9%
<b>Misc Non Residential</b>	0.592	0.617	0.538	0.530	0.589	0.582	0.529	0.525	0.528	3,189	3,289
month-over-month % change	5.9%	4.2%	-12.8%	3.1%	11.3%	-1.2%	1.2%	-0.7%	0.5%		
year-over-year % change	15.1%	-6.8%	6.7%	2.3%	4.0%	4.0%	7.7%	2.6%	3.8%	10.9%	3.2%
<b>TOTAL NON-RES BUILDING</b>	35,314	42,581	29,085	23,476	32,411	35,660	22,522	24,357	24,570	123,154	158,834
month-over-month % change	82.6%	20.6%	-31.7%	35.8%	38.1%	10.0%	5.7%	8.1%	0.9%		
year-over-year % change	70.0%	107.0%	9.6%	18.3%	47.6%	57.6%	13.6%	22.9%	22.2%	-6.2%	29.0%
<b>Airports</b>	0.503	1,055	0.629	0.374	0.665	0.729	0.477	0.502	0.478	2,626	3,153
month-over-month % change	14.8%	109.9%	-40.4%	15.9%	78.1%	9.6%	0.8%	5.2%	-4.8%		
year-over-year % change	10.6%	39.7%	-31.7%	36.5%	41.5%	2.6%	-0.3%	1.1%	-4.2%	-1.7%	20.1%
<b>Roads/Highways</b>	8,639	9,576	8,194	7,395	8,774	8,803	6,218	6,380	6,495	34,895	45,468
month-over-month % change	6.6%	10.8%	-14.4%	16.4%	18.6%	0.3%	1.7%	2.6%	1.8%		
year-over-year % change	17.3%	25.6%	20.2%	31.6%	25.5%	21.1%	17.9%	19.4%	22.1%	0.5%	30.3%
<b>Bridges</b>	3,906	2,842	2,491	2,455	2,874	3,080	1,716	1,815	1,893	10,167	14,904
month-over-month % change	108.7%	-27.2%	-12.4%	30.0%	17.0%	7.2%	10.1%	5.7%	4.3%		
year-over-year % change	93.7%	71.1%	61.0%	51.4%	58.7%	76.8%	-1.4%	5.9%	18.6%	-26.1%	46.6%
<b>Dams/Marine</b>	0.340	0.708	0.419	0.554	0.669	0.489	0.748	0.768	0.748	3,094	3,504
month-over-month % change	-64.5%	107.9%	-40.9%	-18.4%	20.7%	-26.9%	-2.5%	2.7%	-2.6%		
year-over-year % change	-40.1%	50.8%	-36.0%	10.2%	28.0%	-13.3%	17.3%	27.0%	24.1%	-25.3%	13.3%
<b>Water/Sewage</b>	3,543	4,424	4,291	3,134	3,900	4,086	3,004	3,068	3,154	17,275	21,200
month-over-month % change	-5.1%	24.9%	-3.0%	5.1%	24.4%	4.8%	2.7%	2.1%	2.8%		
year-over-year % change	37.2%	20.7%	31.7%	28.6%	30.3%	29.0%	15.1%	12.4%	16.2%	8.2%	22.7%
<b>Misc Civil (Power, etc.)</b>	2,243	1,538	2,361	1,736	1,673	2,048	1,801	1,834	1,886	12,422	11,910
month-over-month % change	81.3%	-31.4%	53.5%	-9.7%	-3.7%	22.4%	-0.8%	1.8%	2.9%		
year-over-year % change	-7.4%	33.4%	36.2%	9.0%	-3.1%	15.7%	-14.7%	-3.1%	1.0%	-2.5%	-4.1%
<b>TOTAL ENGINEERING (Civil)</b>	19,175	20,144	18,384	15,649	18,554	19,234	13,964	14,366	14,65		