

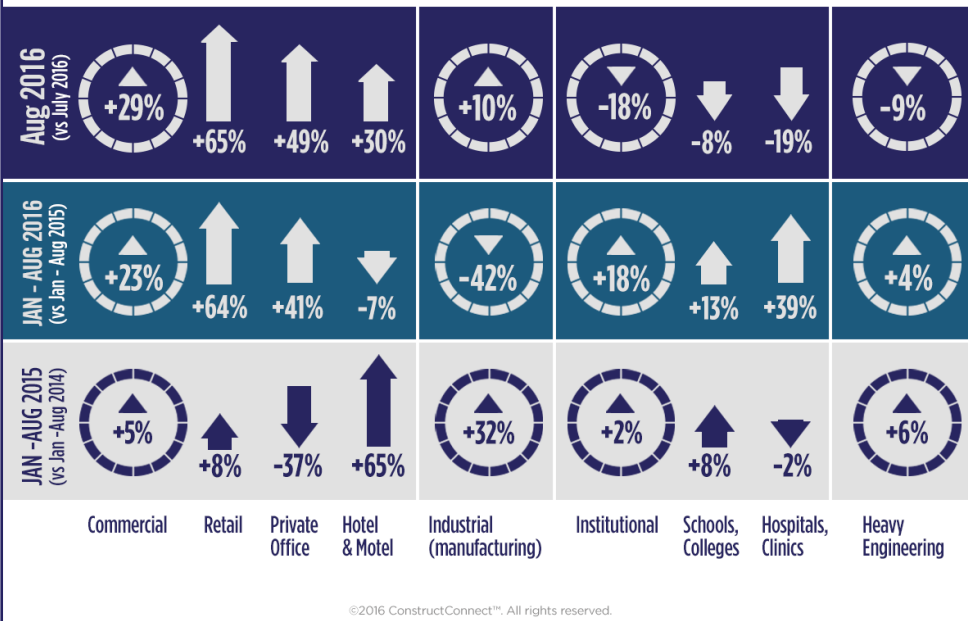
Construction Industry Snapshot

Issued: September 2016
(based on August Starts Stats)

ConstructConnect's August Starts -2% vs July but +12% Year to Date

ConstructConnect announced today that August's level of U.S. construction starts, excluding residential work, was \$33.8 billion, a month-to-month change of -2% versus July's figure.

The mild decrease isn't quite as large as the usual July-to-August change, due to seasonality, of -3.5%.



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August's Notable Points

- The -2.0% month-to-month decline in total starts originated in the institutional (-17.5%) and heavy engineering/civil (-8.8%) type-of-structure categories. Commercial work (+28.8%) managed a sizable jump in starts. The smaller-volume category of industrial (+9.9%) was also nicely ahead.
- August 2016's rise of +11.4% in total starts versus August 2015's level came mainly in commercial work (+61.7%). Institutional (+7.3%) was also on an upswing. Industrial (+0.1%) stayed flat. Engineering (-12.9%) was the only category to scamper backwards in retreat.

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ConstructConnect's August Starts -2% vs July but +12% Year to Date

ConstructConnect™ announced today that August's level of U.S. construction starts, excluding residential work, was \$33.8 billion, a month-to-month change of -2.0% versus July's figure, which has been revised slightly upwards, of \$34.5 billion. The mild decrease isn't quite as large as the usual July-to-August change, due to seasonality, of -3.5%.

Looking ahead, the month-to-month tendency will be for declines through February of next year.

Compared with the same month of last year, the volume of starts in standalone August of this year was up by double digits, +11.4%. Equally impressive, year-to-date starts through the first two-thirds of 2016 have been +12.3 versus the same January-to-August period of 2015.

The starts figures throughout this report are not seasonally adjusted (NSA). Nor are they altered for inflation. They are expressed in what are termed 'current' as opposed to 'constant' dollars.

'Non-residential building' plus 'engineering/civil' work accounts for a considerably larger share of total construction than residential activity. The former's combined proportion of total put-in-place construction in the Census Bureau's July report was 60%; the latter's was 40%.

ConstructConnect's construction starts are leading indicators for the Census Bureau's capital investment or put-in-place series. Also, the reporting period for starts (i.e., August 2016) is one month ahead of the reporting period for the investment series (i.e., July 2016.)

August's *Employment Situation Report* from the Bureau of Labor Statistics (BLS) records a month-to-month construction employment contraction of 6,000 jobs. The year-to-date number of on-site positions is now +43,000 (or +5,000 on average per month) compared with +140,000 (or +18,000 per month) during the first eight months of last year. Year-over-year employment in construction (+3.1%), however, is maintaining a considerably faster pace than for all jobs economy-wide (+1.7%). By comparison, manufacturing jobs are -0.3% year-over-year.

The 'not seasonally adjusted' (NSA) unemployment rate in construction in August deteriorated a bit, but remained tight, at 5.1%. In July, it had been 4.5%; in August 2015, 6.1%; and in August 2014, 7.7%. Anecdotally, contractors are complaining about their difficulties in finding workers.

The monthly *Employment Situation Report* also features two other data series with close ties to hard-hat construction. As a 'leading' indicator, — i.e., before there can be field activity, projects must be rendered into working drawings by design professionals — the total number of jobs in architectural and engineering services in August was +2.4% year over year. On a nominal basis, design services jobs are within +7,000 of matching their previous peak of 1.453 million achieved in February 2008. As a 'coincident' indicator, the total number of positions at retail outlets specializing in selling 'building materials and supplies' is presently a quite positive +4.0%.

The -2.0% month-to-month decline in total starts originated in the institutional (-17.5%) and heavy engineering/civil (-8.8%) type-of-structure categories. Commercial work (+28.8%) managed a sizable jump in starts. The smaller-volume category of industrial (+9.9%) was also nicely ahead. (As a sidebar, industrial's statistics, for any given time frame, can display wild percentage swings depending on the presence or absence of a mega project or two.)

August 2016's rise of +11.4% in total starts versus August 2015's level came mainly in commercial work (+61.7%). Institutional (+7.3%) was also on an upswing. Industrial (+0.1%) stayed flat. Engineering (-12.9%) was the only category to scamper backwards in retreat.

As for year-to-date starts so far in 2016, the commercial (+22.5%) and institutional (+17.5%) type-of-structure categories have delivered commendably upbeat news. Engineering (+4.3%) has registered a modest improvement. Unfortunately, industrial (-42.4%) has disappointed.

With a 30% share by year-to-date nominal value, 'retail/shopping' is the largest sub-category within commercial work. In August, the store component of starts was amazingly strong: +65.2% month over month (m/m); +162.1% year over year (y/y); and +63.7% year to date (ytd). The 'private office building' designation accounts for the second largest chunk (15%) of commercial work. In the latest month, it was +48.9% m/m; +26.1% y/y; and +41.1% ytd.

Government office buildings in August were +36.2% m/m; +19.1% y/y; and +20.2% ytd. Warehouse work was -44.5% m/m; but +83.7% y/y; and +19.9% ytd. 'Hotel/motel' starts were less bullish than most other commercial categories: +30.3% m/m; but -0.8% y/y; and -6.7% ytd.

Also noteworthy among commercial sub-categories, there have been some large parking garage projects this year, mainly at airports, which have caused outsized percentage increases.

The two main sub-categories in institutional work are 'schools/colleges' (with a 62% share) and 'hospitals/clinics' (a 15% slice). In August, the former was -7.9% m/m; but +10.7% y/y; and +13.3% ytd. The latter was -18.6% m/m; but +19.0% y/y; and +39.4% ytd. Jobs at elementary and secondary schools are currently +3.2% y/y; at colleges and universities, +2.0%; and at hospitals, +3.4%. (The employment changes cited are based on seasonally-adjusted data.)

Engineering work is dominated by 'roads/highways' (with a 43% share) and 'water/sewage' (a one-quarter or 25% slice) projects. Street work in August was up m/m (+10.7%) and ytd (+1.6%), but down y/y (-13.1%). Starts on H2O projects were becalmed m/m (+0.2%),

TABLE 1: VALUE OF UNITED STATES CONSTRUCTION STARTS — AUGUST 2016 YEAR TO DATE (ConstructConnect™)

	Jan-Aug 16 (\$ billions)	% Change Jan-Aug 16 vs Jan-Aug 15	% Change Aug 16 vs Aug 15	% Change Aug 16 vs Jul 16
Hotel/Motel	8.832	-6.7%	-0.8%	30.3%
Retail/Shopping	23.539	63.7%	162.1%	65.2%
Parking Garage	4.429	138.7%	1553.6%	197.7%
Amusement	4.431	-1.7%	-17.7%	-22.7%
Private Office	12.061	41.1%	26.1%	48.9%
Government Office	8.947	20.2%	19.1%	36.2%
Laboratory	1.698	16.5%	-34.2%	83.0%
Warehouse	7.898	19.9%	83.7%	-44.5%
Miscellaneous Commercial *	6.213	-34.4%	-35.2%	5.2%
COMMERCIAL (big subset)	78.047	22.5%	61.7%	28.8%
INDUSTRIAL (Manufacturing)	6.073	-42.4%	0.1%	9.9%
Religious	0.989	-12.1%	25.9%	-8.7%
Hospital/Clinic	12.040	39.4%	19.0%	-18.6%
Nursing/Assisted Living	4.714	48.7%	21.9%	-31.7%
Library/Museum	1.767	12.8%	-79.6%	-46.0%
Fire/Police/Courthouse/Prison	4.133	0.7%	34.4%	-16.8%
Military	3.543	18.6%	-42.5%	-55.5%
School/College	48.176	13.3%	10.7%	-7.9%
Miscellaneous Medical	2.838	17.5%	70.1%	-36.1%
INDUSTRIAL	78.200	17.5%	7.3%	-17.5%
Miscellaneous Non-residential	5.845	92.3%	27.5%	-24.0%
NON-RESIDENTIAL BUILDING	168.165	16.9%	31.2%	2.2%
Airport	4.078	108.3%	143.9%	107.1%
Road/Highway	37.279	1.6%	-13.1%	10.7%
Bridge	9.646	16.4%	-3.7%	-21.1%
Dam/Marine	2.446	-33.8%	-27.0%	-0.5%
Water/Sewage	21.368	11.7%	-4.2%	0.2%
Miscellaneous Civil (power, etc.)	11.526	-11.4%	-71.9%	-78.3%
HEAVY ENGINEERING (Civil)	86.342	4.3%	-12.9%	-8.8%
TOTAL NON-RESIDENTIAL	254.507	12.3%	11.4%	-2.0%

* Includes transportation terminals and sports arenas.

Source: ConstructConnect Research Group/Table: ConstructConnect.

sinking y/y (-4.2%), but fountaining upward ytd (+11.7%). Bridge work in August was -21.2% m/m; and -3.7% y/y; but +16.4% ytd. The 'miscellaneous civil/power' grouping was down on all counts.

Table 2 on page three re-orders and provides more detail on some of the type-of-structure categories in Table 1. The reasons for this 'second view' are set out in the footnote.

A sharp divergence in patterns is emerging in the slopes of the 12-month trend graphs on page 5. The non-residential building curves are moving smartly higher. Retail is on an especially sharp incline. The engineering sub-categories, with the exception of bridges, are drooping.

On the wage front, construction workers are doing a little better than the employed U.S. labor force as a whole. Whereas August year-over-year average hourly and average weekly earnings for all employees across America, including bosses, were +2.4% and +1.5% respectively, in the construction industry, the comparable rises were +2.8% and +1.7%. Leaving out bosses and concentrating only on production workers, the hourly and weekly compensation gains for total jobs were +2.5% and +2.2%, which trailed construction's climbs of +3.4% and +2.6%.

The value of construction starts each month is summarized 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-residential construction starts series, because it is comprised of total-value estimates for individual projects, some of which are ultra-large, has a history of being more volatile than many other leading indicators for the economy. ♦

Alex Carrick

A "start" is determined by taking the announced bid date and adding a short time lag (30 to 60 days). ConstructConnect continues to follow the project via its network of researchers. If it is abandoned or re-bid, the start date is updated to reflect the new information.

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 40,000 followers.

**TABLE 2: VALUE OF UNITED STATES CONSTRUCTION STARTS –
ConstructConnect™ INSIGHT VERSION – AUGUST 2016
ARRANGED TO MATCH THE ALPHABETICAL CATEGORY DROP-DOWN MENUS IN INSIGHT**

	Jan-Aug 16 (\$ billions)	% Change Jan-Aug 16 vs Jan-Aug 15	% Change Aug 16 vs Aug 15	% Change Aug 16 vs Jul 16
Summary				
CIVIL	86.342	4.3%	-12.9%	-8.8%
NON-RESIDENTIAL BUILDING	168.165	16.9%	31.2%	2.2%
RESIDENTIAL	159.889	5.3%	4.8%	1.0%
GRAND TOTAL	414.396	9.5%	8.8%	-0.8%
Verticals				
Airport	4.078	108.3%	143.9%	107.1%
All Other Civil	10.965	-11.9%	-72.4%	-80.1%
Bridges	9.646	16.4%	-3.7%	-21.1%
Dams / Canals / Marine Work	2.446	-33.8%	-27.0%	-0.5%
Power Infrastructure	0.560	-1.2%	-66.6%	-10.2%
Roads	37.279	1.6%	-13.1%	10.7%
Water and Sewage Treatment	21.368	11.7%	-4.2%	0.2%
CIVIL	86.342	4.3%	-12.9%	-8.8%
Offices (private)	12.061	41.1%	26.1%	48.9%
Parking Garages	4.429	138.7%	1553.6%	197.7%
Transportation Terminals	2.862	-26.7%	-24.9%	-37.7%
Commercial (small subset)	19.352	35.3%	92.6%	64.3%
Amusement	4.431	-1.7%	-17.7%	-22.7%
Libraries / Museums	1.767	12.8%	-79.6%	-46.0%
Religious	0.989	-12.1%	25.9%	-8.7%
Sports Arenas / Convention Centers	3.350	-39.8%	-41.8%	147.0%
Community	10.538	-17.4%	-40.1%	-1.9%
College / University	15.461	8.5%	22.7%	-11.2%
Elementary / Pre School	15.854	14.2%	-2.5%	-22.4%
Jr / Sr High School	15.972	18.8%	15.5%	11.3%
Special / Vocational	0.889	-7.3%	-20.5%	-9.2%
Educational	48.176	13.3%	10.7%	-7.9%
Courthouses	0.966	14.4%	58.2%	-50.8%
Fire and Police Stations	1.757	50.3%	75.0%	23.5%
Government Offices	8.947	20.2%	19.1%	36.2%
Prisons	1.411	-32.6%	-20.0%	-20.3%
Government	13.081	13.2%	22.7%	16.8%
Industrial Labs / Labs / School Labs	1.698	16.5%	-34.2%	83.0%
Manufacturing	6.073	-42.4%	0.1%	9.9%
Warehouses	7.898	19.9%	83.7%	-44.5%
Industrial	15.669	-15.7%	45.1%	-35.6%
Hospitals / Clinics	12.040	39.4%	19.0%	-18.6%
Medical Misc.	2.838	17.5%	70.1%	-36.1%
Nursing Homes	4.714	48.7%	21.9%	-31.7%
Medical	19.592	37.8%	27.3%	-25.8%
Military	3.543	18.6%	-42.5%	-55.5%
Hotels	8.832	-6.7%	-0.8%	30.3%
Retail Misc.	5.845	92.3%	27.5%	-24.0%
Shopping	23.539	63.7%	162.1%	65.2%
Retail	38.216	42.1%	86.0%	41.2%
NON-RESIDENTIAL BUILDING	168.165	16.9%	31.2%	2.2%
Multi-Family	32.931	-4.5%	-2.4%	5.0%
Single-Family	126.957	8.2%	6.5%	0.2%
RESIDENTIAL	159.889	5.3%	4.8%	1.0%
NON-RESIDENTIAL	254.507	12.3%	11.4%	-2.0%
GRAND TOTAL	414.396	9.5%	8.8%	-0.8%

Table 1 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers. Table 2 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.

TABLE 3: ConstructConnect's TOP 10 FEATURED PROJECTS FOR AUGUST 2016*

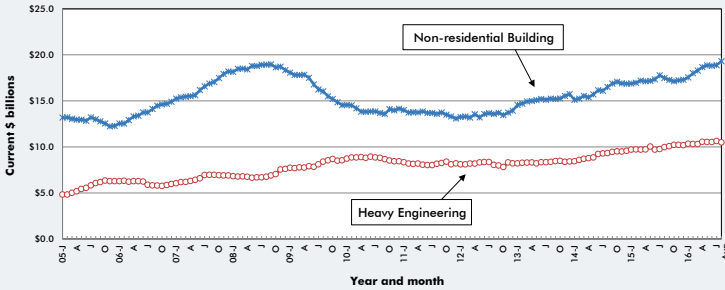
REGION (EAST TO WEST)	TYPE OF CONSTRUCTION	DESCRIPTION	SQUARE FEET 000S	DOLLARS 000,000S
Maryland Hurlock	Institutional	North Dorchester Replacement High School (1 structure; 2 stories) 5875 Cloverdale Rd Dorchester County Public Schools Somerset Construction Company	117	\$50
Florida Orlando	Commercial	Florida Mall Interior Renovations (1 structure) 8001 Orange Blossom Trl Simon Property Group	*	\$400
Homestead	Commercial	Deering Groves (2 structures; 280 units) SW 256th St and SW 137th Ave ahs Development Group	96	\$100
Tampa	Commercial	AC by Marriott/Tampa (1 structure; 6 stories), 4020 W. Boy Scout Boulevard MetLife Real Estate Investors	96	\$29
Ohio Westerville	Commercial	The Village at Central College Sunbury Road South of Central College Road Casto	289	\$27
Tennessee Nashville	Institutional	Criminal Justice Center Complex (2 structures) 448 Second Ave N Metropolitan Government of Nashville and Davidson County	300	\$113
Alabama Saraland	Institutional	Saraland MOB & Diagnostic Center (1 structure; 3 stories) Infirmary Health System	70	\$41
Illinois Joliet	Engineering/Civil	Joliet Multi Modal Transportation Center Train Station 3A Scott St and New St City of Joliet	*	\$42
Chicago	Institutional	Ed Kaplan Family Institute for Innovation & Tech Entrepreneurship S. Federal Street IIT-Design & Construction	92	\$40
Nebraska Omaha	Institutional	Creighton University Dental Clinic (1 structure; 3 stories) 2101 Cuming St Creighton University Facilities Management	301	\$82
TOTALS:			1,361	\$924

*A square footage measure does not apply for alteration and engineering/civil work.

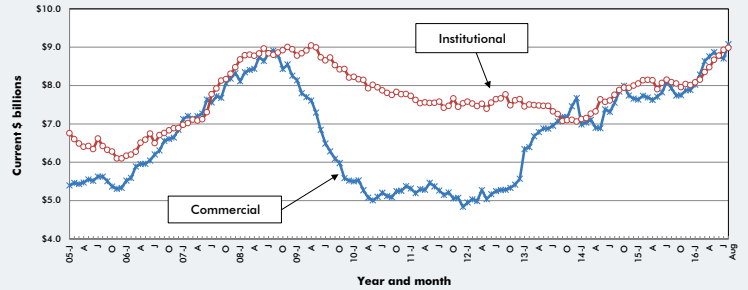
*ConstructConnect™ merges four legacy companies. As part of the data integration process, ConstructConnect™ is moving from an estimated start date (i.e., 30-60 days after bid date) for each project to an assigned start date. The transition will be complete by the end of 2016. Until then, Table 3 will highlight featured projects rather than Top 10 starts.

Source: ConstructConnect/Table: ConstructConnect.

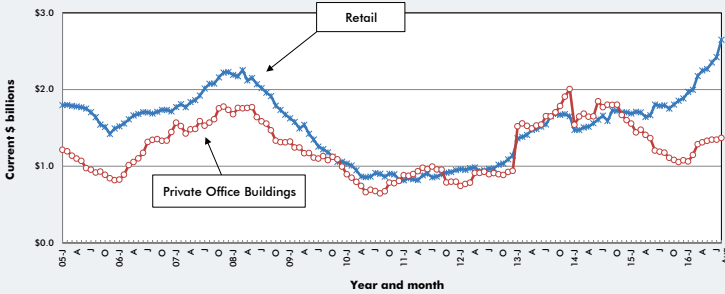
GRAPH 1: U.S. NON-RESIDENTIAL CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



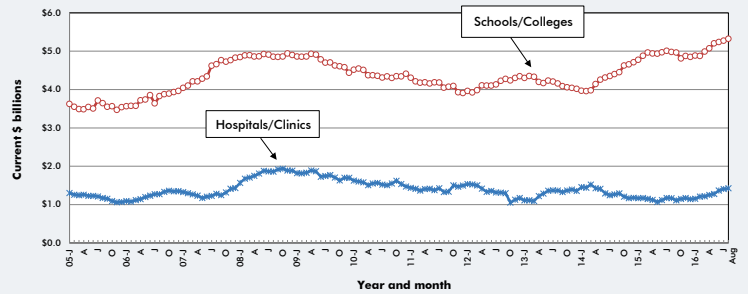
GRAPH 2: U.S. COMMERCIAL AND INSTITUTIONAL CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



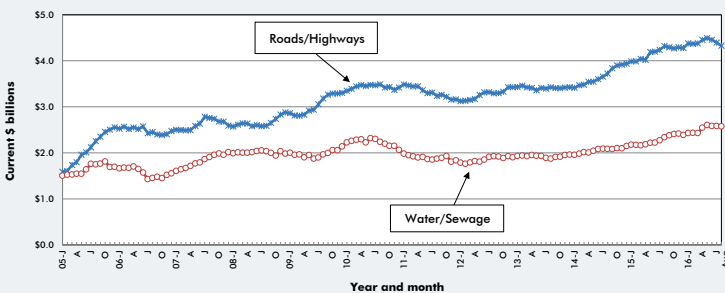
GRAPH 3: U.S. RETAIL AND PRIVATE OFFICE BUILDING CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



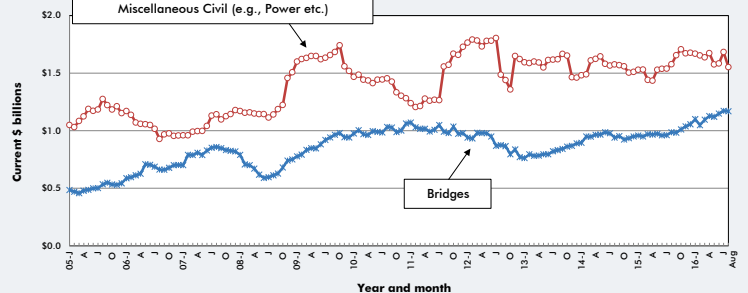
GRAPH 4: U.S. HOSPITAL/CLINIC AND SCHOOL/COLLEGE CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



GRAPH 5: U.S. ROAD/HIGHWAY AND WATER/SEWAGE CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



GRAPH 6: U.S. BRIDGES AND MISCELLANEOUS CIVIL CONSTRUCTION STARTS — ConstructConnect™ (12-MONTH MOVING AVERAGES)



Source: ConstructConnect/Charts: ConstructConnect.

**TABLE 4: U.S. YEAR-TO-DATE REGIONAL STARTS
NON-RESIDENTIAL CONSTRUCTION* — ConstructConnect™**

	Jan-Aug 2015	Jan-Aug 2016	% Change
Connecticut	\$2,335,085,060	\$2,141,416,841	-8.3%
Maine	\$719,479,878	\$650,105,392	-9.6%
Massachusetts	\$5,911,171,722	\$5,296,093,970	-10.4%
New Hampshire	\$770,963,620	\$956,923,590	24.1%
Rhode Island	\$695,813,175	\$431,371,964	-38.0%
Vermont	\$495,410,563	\$397,789,114	-19.7%
Total New England	\$10,927,924,018	\$9,873,700,871	-9.6%
New Jersey	\$4,434,469,761	\$3,989,400,122	-10.0%
New York	\$16,123,597,785	\$15,602,353,028	-3.2%
Pennsylvania	\$7,883,357,870	\$9,153,838,793	16.1%
Total Middle Atlantic	\$28,441,425,416	\$28,745,591,943	1.1%
TOTAL NORTHEAST	\$39,369,349,434	\$38,619,292,814	-1.9%
Illinois	\$9,169,490,852	\$8,200,937,181	-10.6%
Indiana	\$2,731,880,247	\$3,674,397,945	34.5%
Michigan	\$5,522,107,945	\$6,006,571,607	8.8%
Ohio	\$6,677,150,795	\$8,710,655,045	30.5%
Wisconsin	\$3,714,622,743	\$5,294,384,044	42.5%
Total East North Central	\$27,815,252,582	\$31,886,945,822	14.6%
Iowa	\$3,913,877,651	\$3,186,083,950	-18.6%
Kansas	\$3,079,567,942	\$2,512,793,703	-18.4%
Minnesota	\$4,540,779,033	\$5,254,521,873	15.7%
Missouri	\$4,061,278,360	\$4,439,094,228	9.3%
Nebraska	\$1,684,151,708	\$2,095,506,708	24.4%
North Dakota	\$2,049,016,680	\$1,680,618,528	-18.0%
South Dakota	\$1,609,879,446	\$1,012,825,759	-37.1%
Total West North Central	\$20,938,550,820	\$20,181,444,749	-3.6%
TOTAL MIDWEST	\$48,753,803,402	\$52,068,390,571	6.8%
Delaware	\$339,549,523	\$581,603,946	71.3%
District of Columbia	\$956,256,173	\$1,907,734,083	99.5%
Florida	\$11,522,589,022	\$16,156,994,841	40.2%
Georgia	\$4,830,882,999	\$8,833,363,617	82.9%
Maryland	\$3,262,156,078	\$7,406,868,991	127.1%
North Carolina	\$6,757,145,963	\$6,674,619,828	-1.2%
South Carolina	\$2,922,928,595	\$3,834,390,629	31.2%
Virginia	\$4,918,238,202	\$7,027,733,610	42.9%
West Virginia	\$1,310,125,434	\$1,303,194,580	-0.5%
Total South Atlantic	\$36,819,871,989	\$53,726,504,125	45.9%
Alabama	\$2,663,128,391	\$4,378,308,029	64.4%
Kentucky	\$3,199,527,085	\$3,468,248,023	8.4%
Mississippi	\$2,190,327,549	\$1,694,510,129	-22.6%
Tennessee	\$3,972,432,187	\$4,115,855,042	3.6%
Total East South Central	\$12,025,415,212	\$13,656,921,223	13.6%
Arkansas	\$1,808,395,401	\$1,949,841,558	7.8%
Louisiana	\$7,848,154,855	\$2,499,269,788	-68.2%
Oklahoma	\$3,289,798,724	\$3,482,837,416	5.9%
Texas	\$25,457,770,343	\$32,734,367,457	28.6%
Total West South Central	\$38,404,119,323	\$40,666,316,219	5.9%
TOTAL SOUTH	\$87,249,406,524	\$108,049,741,567	23.8%
Arizona	\$2,040,850,721	\$3,162,157,917	54.9%
Colorado	\$3,318,086,084	\$3,903,907,438	17.7%
Idaho	\$1,073,623,834	\$844,328,866	-21.4%
Montana	\$759,605,352	\$811,100,517	6.8%
Nevada	\$5,927,721,731	\$2,714,331,440	-54.2%
New Mexico	\$1,077,739,838	\$1,255,194,732	16.5%
Utah	\$2,710,643,527	\$3,588,265,357	32.4%
Wyoming	\$1,481,990,927	\$954,618,926	-35.6%
Total Mountain	\$18,390,262,014	\$17,233,905,193	-6.3%
Alaska	\$1,219,426,763	\$1,172,439,424	-3.9%
California	\$21,653,316,422	\$24,304,331,310	12.2%
Hawaii	\$1,405,546,616	\$2,495,934,112	77.6%
Oregon	\$2,984,259,268	\$4,039,464,160	35.4%
Washington	\$5,555,497,607	\$6,523,777,787	17.4%
Total Pacific	\$32,818,046,676	\$38,535,946,793	17.4%
TOTAL WEST	\$51,208,308,690	\$55,769,851,986	8.9%
TOTAL U.S.	\$226,580,868,050	\$254,507,276,938	12.3%

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

Source: ConstructConnect/Table: ConstructConnect.

