U.S. Construction Outlook:
Pandemic Impacts, Policy Initiatives, Project Implications

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cumulative change (seasonally adjusted)

Change to 9/21 from:

<table>
<thead>
<tr>
<th></th>
<th>2/20</th>
<th>9/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Construction</td>
<td>2.7%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Total Nonfarm</td>
<td>-3.3%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Nonresidential Construction</td>
<td>-6.0%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Source: BLS current employment statistics, https://www.bls.gov/ces/
State construction employment change, Feb. 2020–August 2021
11 states and DC up, 39 states down (U.S.: -3.0%)

Top 5
South Dakota 7.1%
Idaho 6.7%
Utah 6.5%
Rhode Island 4.9%
South Carolina 3.5%

Bottom 5
Wyoming -16.6%
Louisiana -14.4%
New York -12.4%
West Virginia -10.5%
Vermont -9.8%

Note: Shading based on unrounded numbers
Source: BLS state and area employment, www.bls.gov/sae
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2021 AGC Workforce Survey Results
(responses: 2,136)

Hiring expectation

Expect to hire in the next 12 months
74%

Need to fill open positions

Salaried positions
62%

Hourly craft positions
90%
2021 AGC Workforce Survey Results

We are having a hard time filling some or all positions

- Salaried positions: 86%
- Hourly craft positions: 89%

Difficulty finding quality workers

- Available candidates do not meet industry requirements: 72%

Construction delays

- Delays due to shortage of workers: 61%
Construction Spending
Cumulative % change, January 2020 – August 2021, seasonally adjusted

% change
8/20- 1/20- 8/21: 8/21:
8/21:
Total 24.3% 33.0%
Total public 8.9% 6.6%
Private residential -4.0% -7.1%
Private nonresidential -2.3% -13.5%

Source: US Census Bureau, Construction Spending
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Year-to-date construction spending: Jan–August 2021 vs. Jan–August 2020
(not seasonally adjusted)

• Total 7%; private residential 26% (single-family 38%; multi 18%); private nonres -7%; public -6%

Largest segments (in descending order of 2021 year-to-date spending)
• Power -3% (electric -2%; oil/gas fields & pipelines -10%)
• Education -11% (primary/secondary -8%; higher ed -16%)
• Highway and street -3%
• Commercial -2% (warehouse 11%; retail -15%)
• Office -10%
• Mfg. -1% (chemical 7%; transp. equip. 4%; food/beverage/tobacco 15%; electronic/electric -17%)
• Transportation -6% (air -12%; freight rail/trucking -6%; mass transit 4%)
• Health care -2% (hospital 3%; medical building -6%; special care -3%)
• Lodging -31%
Construction input and ‘bid price’ producer price indexes (PPIs)
cumulative change in PPIs, April 2020–Aug 2021 (not seasonally adjusted)

Inputs to construction April 2020-Aug 2021: 27.8%

‘Bid price’ (new nonres building construction) April 2020-Aug 2021: 5.2%


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Price changes for construction and selected materials
April 2020–August 2021

% change
Apr 2020-Aug 2021:

- Steel mill products: 111%
- Copper and brass mill shapes: 67%
- Lumber and plywood: 52%
- Aluminum mill shapes: 34%
- Plastic construction products: 30%
- Gypsum: 22%
- ‘Bid price’ (new nonres building construction): 5.2%

Source: Bureau of Labor Statistics, producer price indexes (PPIs) for new nonresidential building construction (bid prices), gypsum products, wood, metal products, and plastic products, not seasonally adjusted

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Cost squeeze on contractors can last two years or more

Difference between year-over-year change in materials costs vs. bid prices, Jan 2006–August 2021

Source: Bureau of Labor Statistics, www.bls.gov/ppi, producer price indexes for goods inputs to nonresidential construction (material costs) and new warehouse construction (bid prices)
AGC’s responses to material cost and supply-chain issues

- ConsensusDocs Price Escalation Resource Center: https://www.consensusdocs.org/price-escalation-clause/
- Recording of webinar on “Soaring Material and Supply-Chain Costs and Delays”: https://store.agc.org/Store/CSI/Store/Product_List_WebEds.aspx
- Presentations to government contracting officials and owner groups
- Lobbying for tariff relief on lumber, steel, aluminum, and products
  - Presentation to National Economic Council, VP’s chief economist, Commerce chief economist
  - Presentations in coalitions to counselor to Commerce secretary, Senate & House trade staff

Source: Author
## Forward-looking indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Latest date</th>
<th>Current value</th>
<th>Year-ago value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture Billings Index (ABI)</td>
<td>August</td>
<td>55.6</td>
<td>41.4</td>
</tr>
<tr>
<td>Dodge Momentum Index (DMI)</td>
<td>Sept.</td>
<td>165</td>
<td>127</td>
</tr>
<tr>
<td>Multifamily permits not yet started</td>
<td>August</td>
<td>101,000</td>
<td>70,000</td>
</tr>
</tbody>
</table>

Source: American Institute of Architects (ABI), Dodge Data & Analytics (DMI), Census Bureau (New Residential Construction)
Medium-term impacts as recovery begins

• Economic recovery looks more certain but virus risks remain, especially for construction:
  
  vaccination rate = 54% for construction workers, 81% for other occupations;
  
  vaccine hesitancy rate = 42% for construction, 17% for others

• Slower rebound than for other sectors as owners, investors/lenders, institutions, and public agencies face uncertainty about future demand, project costs, and completion times

• Continuing cost and supply challenges may lead to more project deferrals

• Less demand than pre-crisis for retail, offices, higher ed, lodging & travel-related

• Unclear how states and localities will spend added tax revenue and federal dollars

• Senate infrastructure bill won’t become law before October, if at all

• Best private prospects: remodeling, local distribution centers, data centers, restaurants

Source: Author
Long-run construction outlook (post-pandemic)

- Slower population growth means slower demand growth for most construction
- Permanent shift from retail to e-commerce/distribution structures
- More specialized and online healthcare facilities; fewer hospitals, nursing homes
- More wind, solar, battery storage and charging facilities, and related manufacturing
- Less oil drilling and pipeline construction
- Continuing demand for K-12 but much less for higher ed construction
- Not clear if offices will decentralize or remain in less demand
- Not clear yet if urban/rural or state-to-state trends will change
Population change by state, July 2019–July 2020 (U.S.: 0.35%)

**Top 5**
- ID: 2.1%
- AZ: 1.8%
- NV: 1.5%
- UT: 1.5%
- TX: 1.3%

**Bottom 5**
- NY: -0.6%
- IL: -0.6%
- HI: -0.6%
- WV: -0.6%
- MS: -0.4%

Source: U.S. Census Bureau, Dec. 2020 estimates, [www.census.gov/popest](http://www.census.gov/popest)
AGC economic resources
(email ken.simonson@agc.org)

- The Data DIGest: weekly 1-page email (subscribe at http://store.agc.org)
- ConsensusDocs Price Escalation Resource Center: https://www.consensusdocs.org/price-escalation-clause/
- Surveys, state and metro data, fact sheets: www.agc.org/learn/construction-data
- Monthly press releases: construction spending; producer price indexes; national, state, metro employment with rankings