November 11, 2021

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

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Cumulative change (seasonally adjusted)

Change to 10/21 from:

<table>
<thead>
<tr>
<th></th>
<th>2/20</th>
<th>10/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Construction</td>
<td>3.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Nonresidential Construction</td>
<td>-5.1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total Nonfarm</td>
<td>-2.8%</td>
<td>4.1%</td>
</tr>
</tbody>
</table>

Source: BLS current employment statistics, https://www.bls.gov/ces/

14 states and DC up, 1 state flat, 35 states down (U.S.: -2.6%)

Top 5
- Idaho 9.3%
- Utah 8.2%
- South Dakota 7.9%
- Delaware 5.6%
- Rhode Island 3.9%

Bottom 5
- Louisiana -16.1%
- Wyoming -15.7%
- New York -11.6%
- West Virginia -8.1%
- Vermont -7.8%

Note: Shading based on unrounded numbers
Source: BLS state and area employment, www.bls.gov/sae
US & UT Construction Employment
Cumulative change, Jan 2020-Sep 2021, seasonally adjusted

% change
Jan 2020-Sep 2021:

UT: 8.9%
US: -2.1%

Source: BLS

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Utah Metro Area Construction Employment
January 2019–September 2021, not seasonally adjusted

Sep 2021 change from:

Salt Lake City*
Sep 2020: 6%
Sep 2019: 10%
Sep 2021 [53,700]
Sep 2020 [50,800]

Provo-Orem*
Sep 2020: 6%
Sep 2019: 9%
Sep 2021 [28,300]
Sep 2020 [26,700]

Ogden-Clearfield*
Sep 2020: 5%
Sep 2019: 11%
Sep 2021 [23,000]
Sep 2020 [21,900]

St. George*
Sep 2020: 6%
Sep 2019: 21%
Sep 2021 [9,900]
Sep 2020 [9,300]

Source: BLS
*The Bureau of Labor Statistics reports employment for construction, mining and logging combined for metro areas in which mining and logging have few employers. Construction-only employment change is shown for a metro if BLS posts that data.
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%
2 concerns about construction worker supply

- Low vaccination rate: 53% for construction workers, 81% for other occupations
- “Premium” for construction wages relative to total private sector has shrunk
  - From 20-23% pre-pandemic to <18% for production & nonsupervisory employees
  - From 9-12% pre-pandemic to <8% for all employees
Year-to-date construction spending:
Jan–September 2021 vs. Jan–September 2020
(not seasonally adjusted)

- Total 7%; private residential 25% (single-family 37%; multi 18%); private nonres -6%; public -6%

**Largest segments** (in descending order of 2021 year-to-date spending)

- Power -3% (electric -1%; oil/gas fields & pipelines -8%)
- Education -11% (primary/secondary -8%; higher ed -16%)
- Highway and street -1%
- Commercial 0% (warehouse 12%; retail -13%)
- Office -9%
- Mfg. -0.2% (chemical 6%; transp. equip. 2%; food/beverage/tobacco 20%; electronic/electric -16%)
- Transportation -6% (air -11%; freight rail/trucking -6%; mass transit 2%)
- Health care -1% (hospital 0.4%; medical building 4%; special care -3%)
- Lodging -32%
Construction input and ‘bid price’ producer price indexes (PPIs)
cumulative change in PPIs, April 2020 – October 2021 (not seasonally adjusted)

Inputs to construction
April 2020-October 2021: 28%

‘Bid price’ (new nonres building construction)
April 2020-October 2021: 12%

PPIs for construction and selected inputs

cumulative change in PPIs, April 2020 – October 2021 (not seasonally adjusted)

% change
Apr 2020-Oct 2021:

-20% 0% 20% 40% 60% 80% 100% 120% 140%

Steel mill products 133%
Copper and brass mill shapes 65%
Aluminum mill shapes 40%
Lumber and plywood 39%
Plastic construction products 35%
Gypsum products 24%
‘Bid price’ (new nonres building construction) 12%

Cost squeeze on contractors can last two years or more

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

Source: Bureau of Labor Statistics, [www.bls.gov/ppi](http://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.consensussdocs.org/price-escalation-clause/](https://www.consensussdocs.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](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
# 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>Sept.</td>
<td>56.6</td>
<td>46.1</td>
</tr>
<tr>
<td>Dodge Momentum Index (DMI)</td>
<td>Oct.</td>
<td>181</td>
<td>123</td>
</tr>
<tr>
<td>Multifamily permits not yet started</td>
<td>Sept.</td>
<td>103,000</td>
<td>72,000</td>
</tr>
</tbody>
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Source: American Institute of Architects (ABI), Dodge Data & Analytics (DMI), Census Bureau (New Residential Construction)
Architecture Billings and Dodge Momentum Indexes
January 2019–September 2021, seasonally adjusted

Sep 2021 change from:
- Sep 2021: [56.6]
- Sep 2019: 6.7
- Sep 2020: 10.4

Sep 2021 % change from:
- Sep 2019: 27%
- Sep 2020: 30%

Architectural Billings Index

Dodge Momentum Index

Source: American Institute of Architects (AIA) Dodge Data & Analytics (Dodge Momentum Index)
Medium-term impacts as recovery begins

• Economic recovery looks more certain but virus risks remain, especially for construction: low worker vaccination rate; possible pullback by owners on project starts

• 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

• Infrastructure funds will take time to distribute and award to individual projects, muting the medium-term impact on labor and materials supply
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)
• Construction Inflation Alert:
  https://www.agc.org/learn/construction-data/agc-construction-inflation-alert
• 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