US Construction Spending, Labor & Materials Outlook

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Headline Forecast

• The US economy is still expanding but more slowly:
  - consumer, business confidence, stocks are close to or at peak levels
  - latest data are weak for single-family housing; mixed for apts., manufacturing
  - concerns about trade, slowing global growth have added to recession risk
• Contractors remain busy and confident; construction employment is growing in most states and spending is up in most project categories
• Three concerns:
  - impact of trade policies on materials costs and on demand for construction
  - widening labor shortage, worsened by hostile immigration policy
  - if interest rates rise, may cut demand for income-producing projects, new homes

Source: Author
Construction spending & employment, 2006–2019

Spending put in place, Feb. ‘06 (prior peak)—May ‘19

- **5/18–5/19 Total**: $1.29 trillion (7% above ‘06 peak)
- **% change**: Total: -2.3%

<table>
<thead>
<tr>
<th>Type</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private residential</td>
<td>-11.2%</td>
</tr>
<tr>
<td>Private nonresidential</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Public</td>
<td>10.8%</td>
</tr>
</tbody>
</table>

Employment, April ‘06 (peak)—May ‘19

- **5/18–5/19 Total**: 7.5 million (3% below ‘06 peak)
- **% change**: Total: 3.0%

<table>
<thead>
<tr>
<th>Type</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonres</td>
<td>3.7%</td>
</tr>
<tr>
<td>Residential</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: spending--U.S. Census Bureau; employment--Bureau of Labor Statistics
## Nonresidential spending by segment: 2017-2018 change and 2019 forecast

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Power (incl. oil &amp; gas field structures, pipelines)</td>
<td>4.7%</td>
<td>5.7%</td>
<td>3-6%</td>
</tr>
<tr>
<td>Educational</td>
<td>3</td>
<td>5</td>
<td>4-7%</td>
</tr>
<tr>
<td>Highway and street</td>
<td>4</td>
<td>18</td>
<td>7-10%</td>
</tr>
<tr>
<td>Office</td>
<td>9</td>
<td>9</td>
<td>6-9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-2</td>
<td>11</td>
<td>2-5%</td>
</tr>
<tr>
<td>Transportation (air, land, water)</td>
<td>15</td>
<td>9</td>
<td>7-10%</td>
</tr>
<tr>
<td>Retail</td>
<td>-7</td>
<td>-23</td>
<td>-15 to -20%</td>
</tr>
<tr>
<td>Health care</td>
<td>0</td>
<td>3</td>
<td>-1 to 2%</td>
</tr>
<tr>
<td>Warehouse</td>
<td>14</td>
<td>1</td>
<td>5-8%</td>
</tr>
<tr>
<td>Lodging</td>
<td>11</td>
<td>8</td>
<td>0-5%</td>
</tr>
<tr>
<td>Sewage &amp; waste disposal</td>
<td>8</td>
<td>17</td>
<td>7-10%</td>
</tr>
<tr>
<td>Other* (13% of 2018 total)</td>
<td>6</td>
<td>6</td>
<td>2-7%</td>
</tr>
</tbody>
</table>

*Amusement, farm, communication, water supply, public safety, conservation, and religious

Source: U.S. Census Bureau construction spending report; Author’s forecast
Construction spending: public works

annual total, 2008–17; monthly, 1/18-5/19 (seasonally adjusted annual rate); billion $

**Highways** (99.7% public in 2018)

May ‘18–May ‘19: 17%

**Transportation** (67% public in 2018)

May ‘18–May ‘19: 13% (air 8%; other 16%)

**Sewage/waste & water**

(2018 public shares: sewage 98%; water 98%)

May ‘18–May ‘19: sewage/waste 19%, water 13%

**Conservation and development**

(99.7% public in 2018)

May ‘18–May ‘19: 5%

Source: U.S. Census Bureau construction spending report
Key points: roads, transportation, sewer/water

• Federal infrastructure bill is unlikely in 2019; spending wouldn’t occur until later, but state highway funding and toll projects are increasing

• Many new and ongoing public & private airport projects; selective increases in transit construction

• Water & sewer/wastewater spending returning to 2011-15 levels after large drop in 2016-17; little long-term new funding likely

• Conservation will grow if Corps of Engineers can award enough $
Construction spending: industrial, heavy
annual total, 2008–17; monthly, 1/18-5/19 (seasonally adjusted annual rate); billion $

Power (94% private in 2018)
- May ‘18–May ‘19: -4% (oil & gas 4%; electric -6%)

Manufacturing (99.4% private in 2018)
- May ‘18–May ‘19: 13% (chemical 10%; other 16%)

Amusement & recreation (55% private in 2018)
- May ‘18–May ‘19: 8% (private 0%; public 18%)

Communication (99.3% private in 2018)
- May ‘18–May ‘19: -3%

Source: U.S. Census Bureau construction spending report
Key points: power & energy, mfg, amusement, communication

• Solar, wind power are growing again; expect more oil & natural gas pipelines in ’19 but timing is subject to court & regulatory delays

• Manufacturing construction should recover further in ‘19 based on energy projects, U.S. economic growth; but tariffs, foreign retaliation, rising construction costs are major concerns

• Amusement & recreation spending is very “lumpy”—a few big stadiums at irregular intervals; but funding for local, state, federal parks keeps eroding

• Communication may revive as wireless firms build out 5G networks

Source: Author
Construction spending: education, health care
annual total, 2008–17; monthly, 1/18-5/19 (seasonally adjusted annual rate); billion $

Education (78% public in 2018)

- State/local preK-12
- State/local higher ed
- Private

May ’18–May ’19: 2% (state/local preK-12 7%; state/local higher ed 3%; private -12%)

Health care (78% private in 2018)

- Hospital
- Medical building
- Special care

May ’18–May ’19: 3% (hospital -5%; medical building 15%; special care 26%)

Source: U.S. Census Bureau construction spending report
Key points: education & health care

• Rising house & commercial property values are supporting school district tax receipts & bond issues for preK-12 projects
• Higher-ed enrollment is shrinking and some small colleges are closing; decrease in full-tuition foreign students will hurt budgets
• Rising stock prices help private school & college capital campaigns
• Health care spending is shifting from hospitals to standalone special-care facilities (urgent care, surgery, rehab, hospices)

Source: Author
Construction spending: developer-financed

annual total, 2008–17; monthly, 1/18-5/19 (seasonally adjusted annual rate); billion $

**Retail (private)**

May '18–May '19: -25%

**Office (87% private in 2018)**

May '18–May '19: 7% (private 7%; public 6%)

**Warehouse (private)**

May '18–May '19: -6%

**Lodging (private)**

May '18–May '19: 7%

Source: U.S. Census Bureau construction spending report
Key points: retail, warehouse, office, hotel, data centers

• Retail now tied to mixed-use buildings & renovations, not standalone structures; massive store closings imply ongoing downturn
• Warehouse growth is still benefiting from e-commerce; more local than huge regional distribution centers likely in future
• Office employment is still rising but space per worker is shrinking; more urban & renovation work than suburban office parks
• Hotel pipeline is still large but sector is very interest-rate sensitive
• Data centers remain a strong niche but no data available on how strong

Source: Author
Private residential spending: single-family poised to grow; pickup in multifamily annual total, 2006–17; monthly, 1/18-5/19 (seasonally adjusted annual rate); billion $
Residential spending forecast--2019: 3-6% (3% in 2018; 12% in 2017)

• Single-family--2019: 3-6% (5% in 2018; 11% in 2017); more households are in prime age group, with rising incomes and wealth, but builders face challenges

• Multifamily--2019: 3-6% (1% in 2018; -2% in 2017)
  – occupancy rates, rents have leveled off; but permits have outpaced starts, implying rebound in 2019
  – millennials are staying longer in cities and denser suburbs where multifamily construction is bigger share of market than in outer suburbs
  – nearly all multifamily construction is rental, not condo; more high-rises

• Improvements--2019: 3-6% (0% in 2018; 19% in 2017); rising number of seniors prefer remodeling to moving but labor scarcity may limit amount of construction

Source: Author
Population change by state, July 2017–July 2018 (U.S.: 0.62%)

**Top 5**
- NV: 2.1%
- ID: 2.1%
- UT: 1.9%
- AZ: 1.7%
- FL: 1.5%

**Bottom 5**
- WV: -0.6%
- IL: -0.4%
- AK: -0.3%
- HI: -0.3%
- NY: -0.2%

Source: U.S. Census Bureau
State construction employment change (U.S.: 3.1%)

6/18 to 6/19: 42 states up, 8 states down and DC unchanged

Top 5
- W. Virginia: 19.8%
- Wyoming: 14.1%
- Arizona: 11.6%
- Alaska: 10.3%
- Nevada: 9.7%

Bottom 5
- Louisiana: -8.0%
- Montana: -2.8%
- Vermont: -2.7%
- Massachusetts: -2.1%
- Connecticut: -1.7%

Note: Shading based on unrounded numbers
Source: BLS state and regional employment report
Metro construction employment change (U.S.: 3.1%)

6/18 to 6/19: 253 (71%) of 358 metros up, 44 unchanged, 61 (17%) down

Top 5

Auburn-Opelika, AL 24%
Pocatello, ID 18%
Camden, NJ Div. 17%
Spokane-Spokane Valley, WA 16%
Monroe, MI 14%

Bottom 5

Atlantic City-Hammonton, NJ -15%
Longview, TX -10%
Baton Rouge, LA -9%
Hartford-West Hartford-East
Hartford, CT NECTA -8%
Ithaca, NY -8%

Source: BLS state and regional employment report
Construction workforce indicators (not seasonally adjusted)

Construction openings: all-time high; hires steady (May data, 2009-19)

Openings: 369,000
Hires: 526,000

Construction job openings rate has been growing as pay accelerates (May data, 2009-19)

Job openings rate in construction
12-mo % change in construction average hourly earnings

Source: Bureau of Labor Statistics
12-month change in producer price index for key inputs

Source: Bureau of Labor Statistics
Cumulative changes in materials & labor costs vs. bid prices

Cumulative % change, not seasonally adjusted

- PPI for inputs to construction
- Average hourly earnings for all construction employees
- PPI for nonresidential building

Source: Bureau of Labor Statistics
# 2017-2018 summary and 2019 forecast

<table>
<thead>
<tr>
<th></th>
<th>2018 actual</th>
<th>Jan-May ‘19 vs. Jan-May ‘18</th>
<th>2019 forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total spending</strong></td>
<td>4%</td>
<td>-0.3%</td>
<td>3-6%</td>
</tr>
<tr>
<td><strong>Private – residential</strong></td>
<td>3%</td>
<td>-8.2%</td>
<td>3-6%</td>
</tr>
<tr>
<td><strong>– nonresidential</strong></td>
<td>3%</td>
<td>2%</td>
<td>3-6%</td>
</tr>
<tr>
<td><strong>Public</strong></td>
<td>7%</td>
<td>12%</td>
<td>2-5%</td>
</tr>
<tr>
<td><strong>Goods &amp; services inputs PPI</strong></td>
<td>3.8%</td>
<td>2.8%*</td>
<td>3-5%</td>
</tr>
<tr>
<td><strong>Wages &amp; salaries (avg. hourly earnings)</strong></td>
<td>3.6%</td>
<td>3.2%*</td>
<td>3.5-4.5%</td>
</tr>
</tbody>
</table>

* May 2018 – May 2019
AGC economic resources
(email simonsonk@agc.org)

• *The Data DIgest*: weekly 1-page email (subscribe at http://store.agc.org)

• monthly press releases: spending; producer price indexes; national, state, metro employment with rankings

• yearly employment & outlook surveys, state and metro data, fact sheets: www.agc.org/learn/construction-data