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Quality People. Quality Projects.



US Construction Spending, Labor and Materials Outlook

FTA Conference, San Diego October 8, 2018

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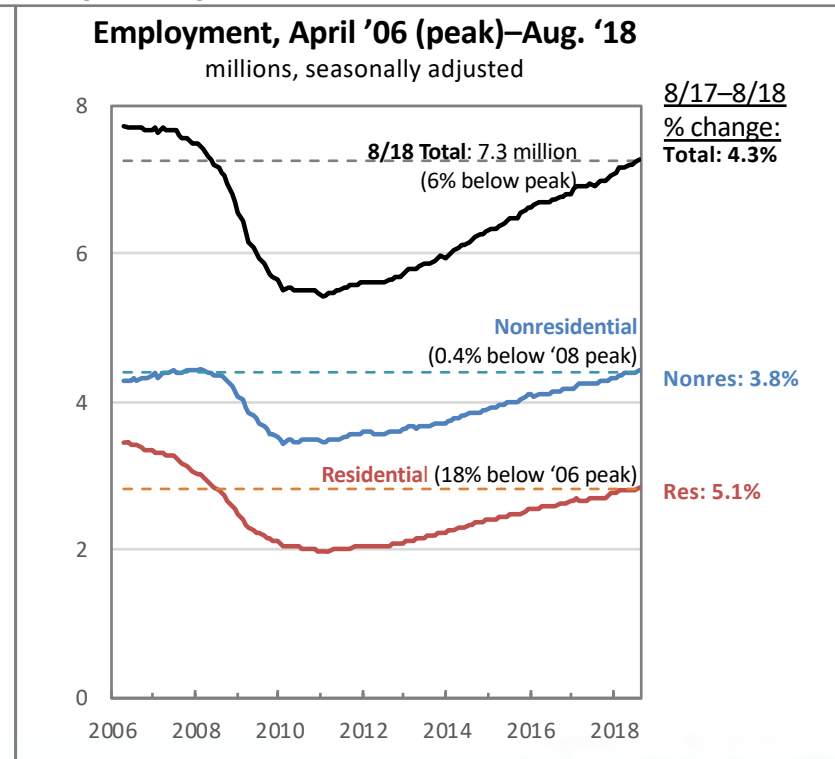
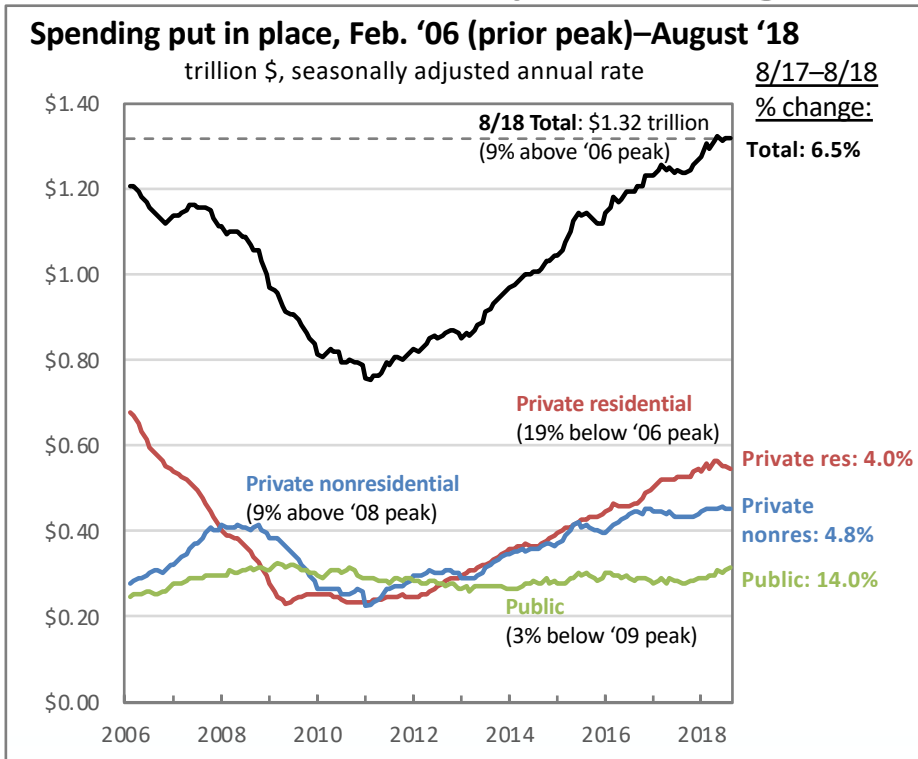
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Headline Forecast

- The US economy is strong and growing; 4.2% 2nd quarter real GDP growth; consumer, business confidence are high
- Trade tensions continue as tariffs, retaliation widen; steel and fuel prices rising at double-digit rates, squeezing contractors' profits
- Construction employment is rising twice as fast as overall employment; unemployment is at an 18-year low; majority of contractors regardless of region, sector or size are struggling to fill craft and other skilled positions
- AGC priorities: infrastructure, career training and education, immigration

Construction spending & employment, 2006–2018



Source: spending--U.S. Census Bureau; employment--Bureau of Labor Statistics

Nonresidential spending by segment: 2017 change, 2018-19 forecast

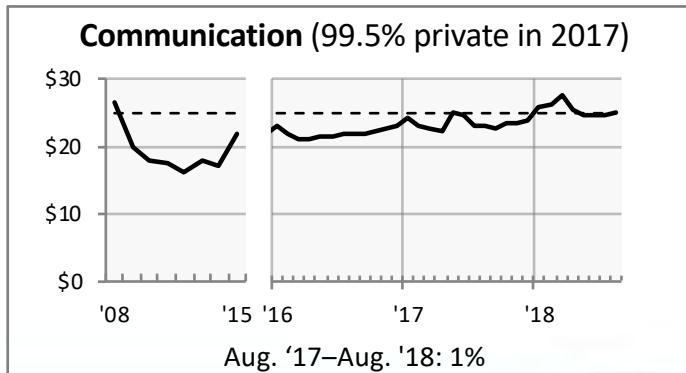
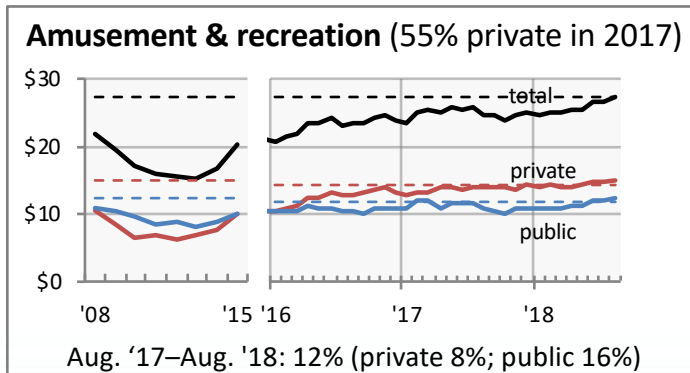
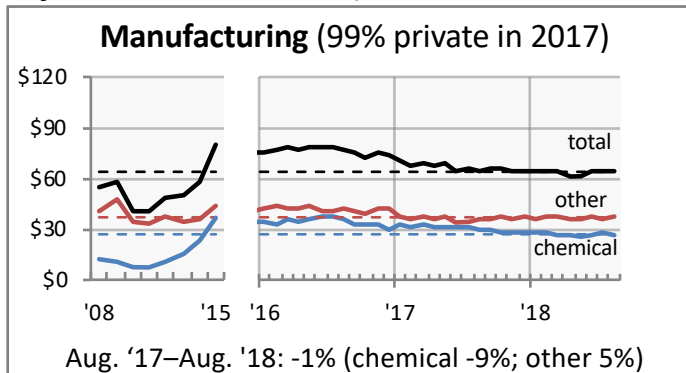
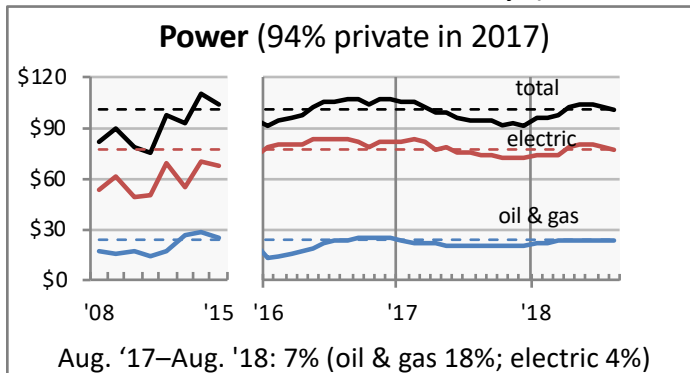
	2017 vs. 2016	Jan–Aug. '18 vs. Jan–Aug. '17	2018 forecast
Nonresidential total (public+private)	-0.5%	4.4%	2018: 3-5% 2019: 2-5%
Power (incl. oil & gas field structures, pipelines)	-5	1	0-3%
Educational	1	1	0-3%
Highway and street	-4	6	4-7%
Commercial (retail, warehouse, farm)	12	5	4-7%
Office	-1	8	6-9%
Manufacturing	-13	-6	-7 to -4%
Transportation	4	17	15-18%
Health care	4	1	0-3%
Lodging	6	10	7-10%
Sewage & waste disposal	-12	10	7-10%
Other--amusement; communication; religious; public safety; conservation; water: 11% of '17 total	3	5	2-5%

Source: U.S. Census Bureau construction spending report; Author's forecast



Construction spending: industrial, heavy

annual total, 2008–15; monthly (seasonally adjusted annual rate), 1/16–8/18; billion \$



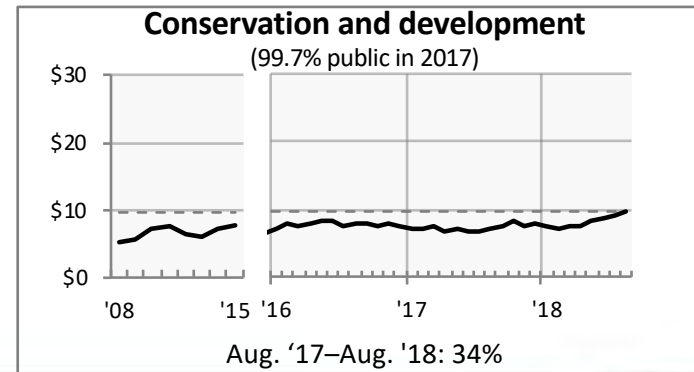
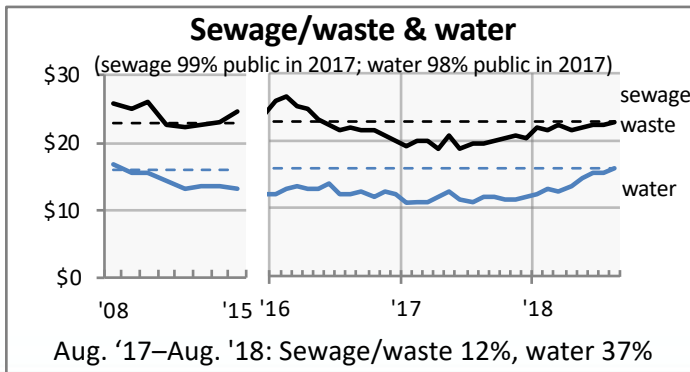
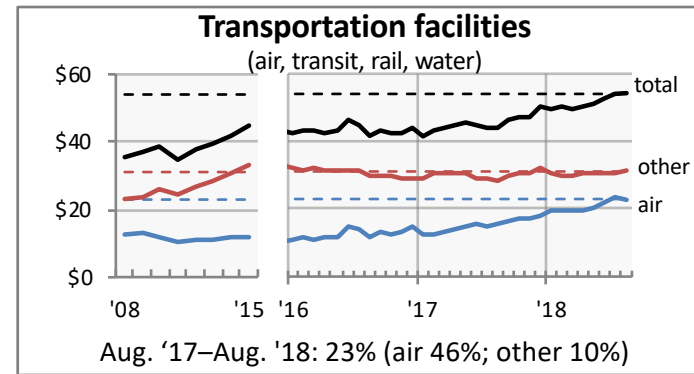
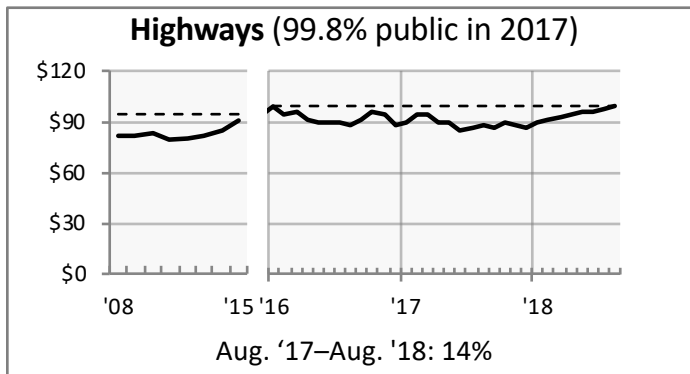
Source: U.S. Census Bureau construction spending report

Key points: power & energy, mfg, amusement, communication

- Solar, wind power are growing again; expect more gas-fired plants, natural gas pipelines in '19
- Manufacturing construction should recover later 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

Construction spending: public works

annual total, 2008–15; monthly (seasonally adjusted annual rate), 1/16–8/18; billion \$



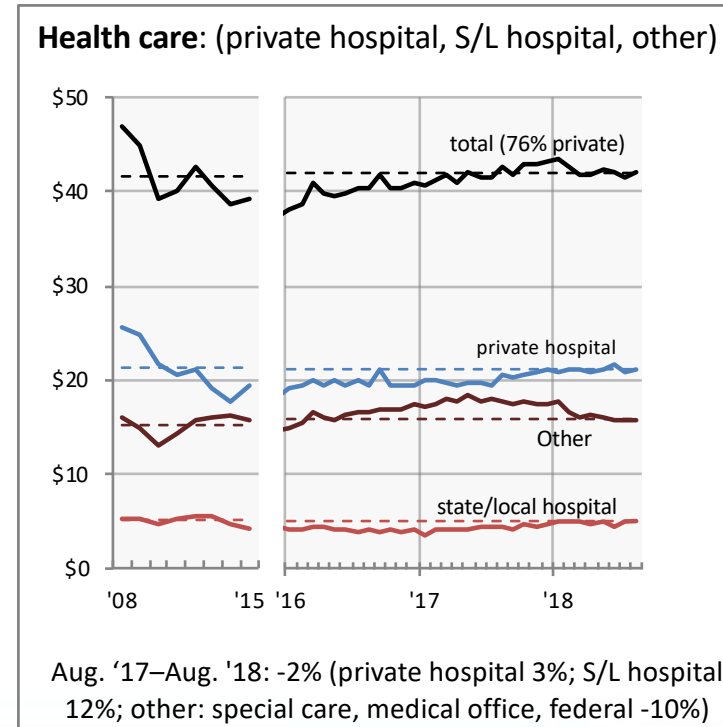
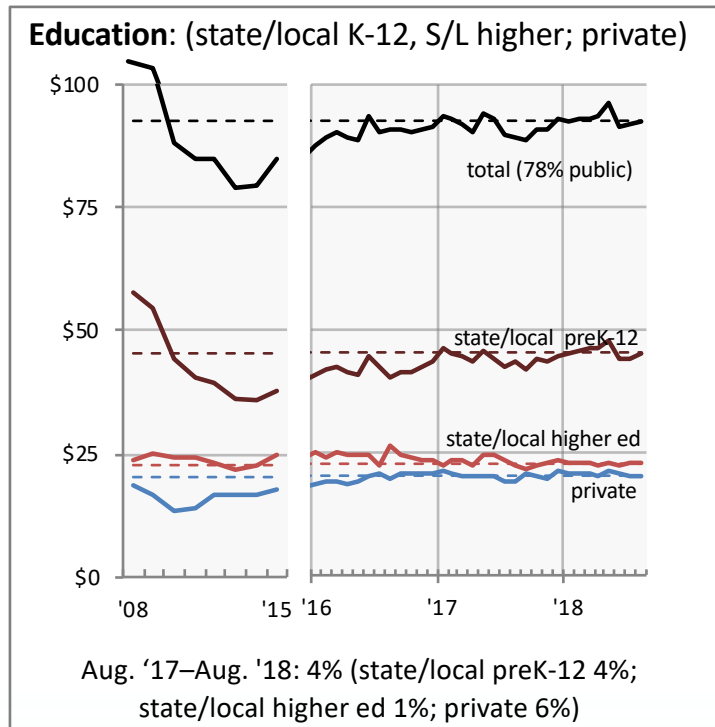
Source: U.S. Census Bureau construction spending report

Key points: roads, transportation, sewer/water

- State highway funding and toll projects are increasing but federal funding likely to be flat through 2019; no infrastructure bill likely
- Many new and ongoing public & private airport projects; revival of freight rail construction; but no net increase likely in public funding for port, passenger rail or transit construction
- Water & sewer/wastewater spending returning to 2011-15 levels after large drop in 2016-17; little long-term new funding likely
- Conservation benefiting from Corps of Engineers funding increase

Construction spending: education, health care

annual total, 2008–15; monthly (seasonally adjusted annual rate), 1/16–8/18; billion \$



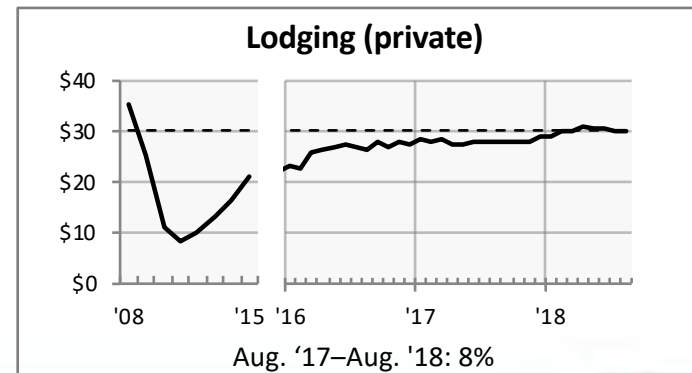
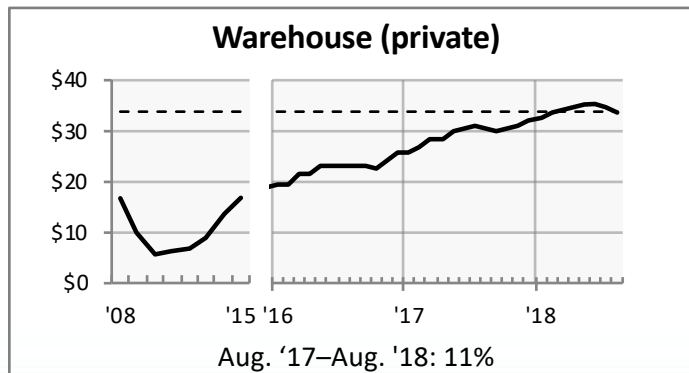
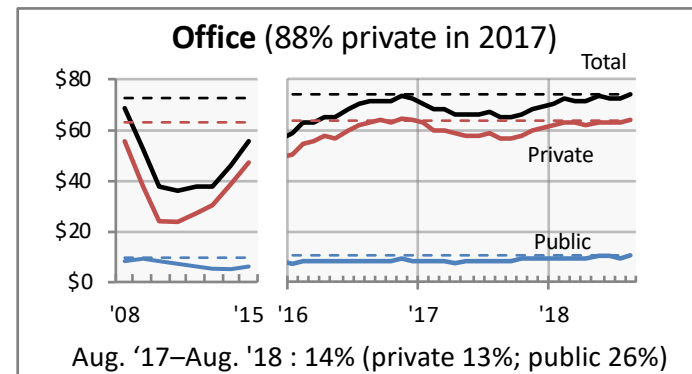
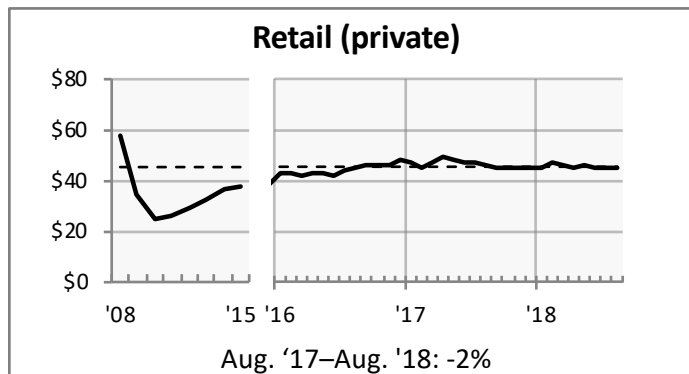
Source: U.S. Census Bureau construction spending report

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 declined 21% from 2011 to 2016; likely decrease in full-tuition foreign students will hurt budgets; apts. (multifamily) replacing dorms (educational construction)
- Rising stock prices help private school & college capital campaigns
- Despite recent rebound in hospital spending, health care spending is shifting to special care facilities (urgent care, surgery, rehab, hospices)

Construction spending: developer-financed

annual total, 2008–15; monthly (seasonally adjusted annual rate), 1/16–8/18; billion \$



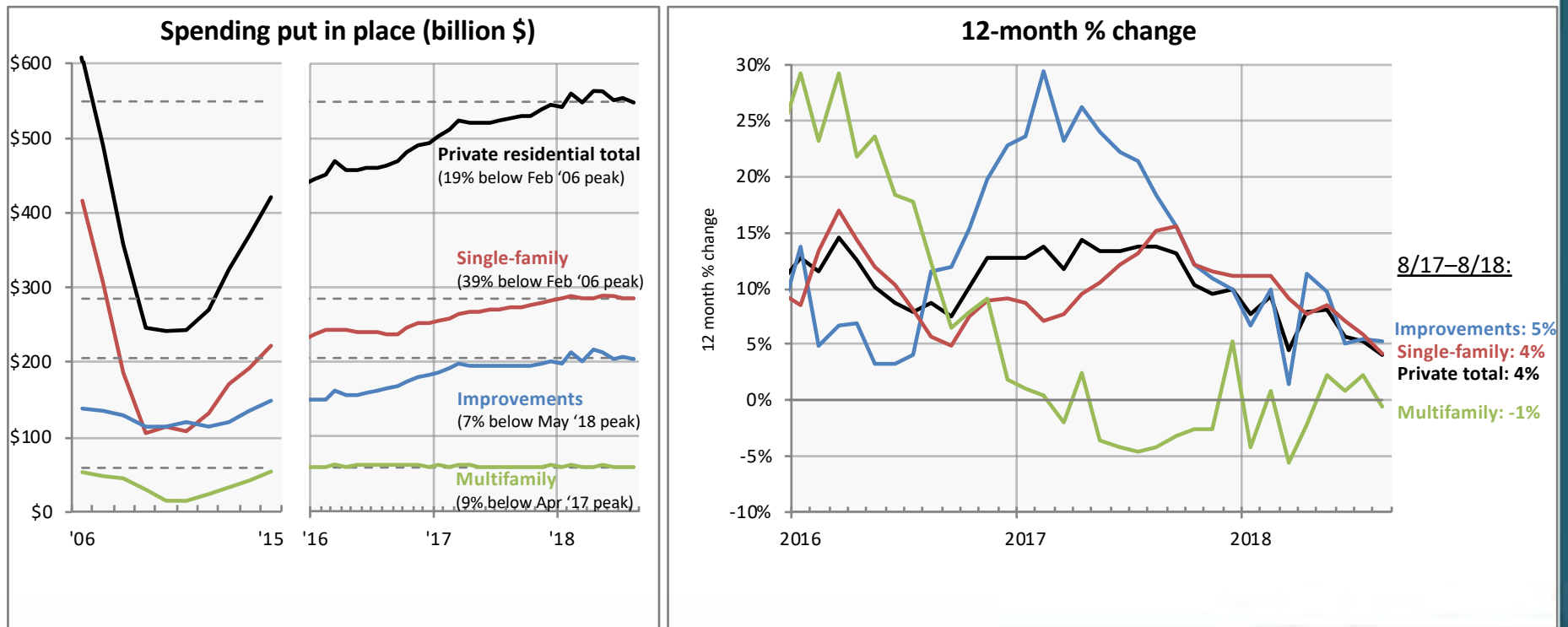
Source: U.S. Census Bureau construction spending report

Key points: retail, warehouse, office, hotel, data centers

- Retail now tied to mixed-use buildings & renovations, not standalone structures; massive store closings imply downturn continuing into '19
- Warehouse growth is still benefiting from e-commerce; more local than huge regional distribution centers likely in future; self-storage is booming
- Office growth is slowing; employment still rising but space per worker is shrinking; more urban & renovation work than suburban office parks
- Hotel pipeline is still growing but sector is very interest-rate sensitive
- Data centers remain a strong niche but no data available on how strong

Private residential spending: steady single-family growth, slower multifamily

annual total, 2006–15; monthly (seasonally adjusted annual rate), 1/16–8/18; billion \$



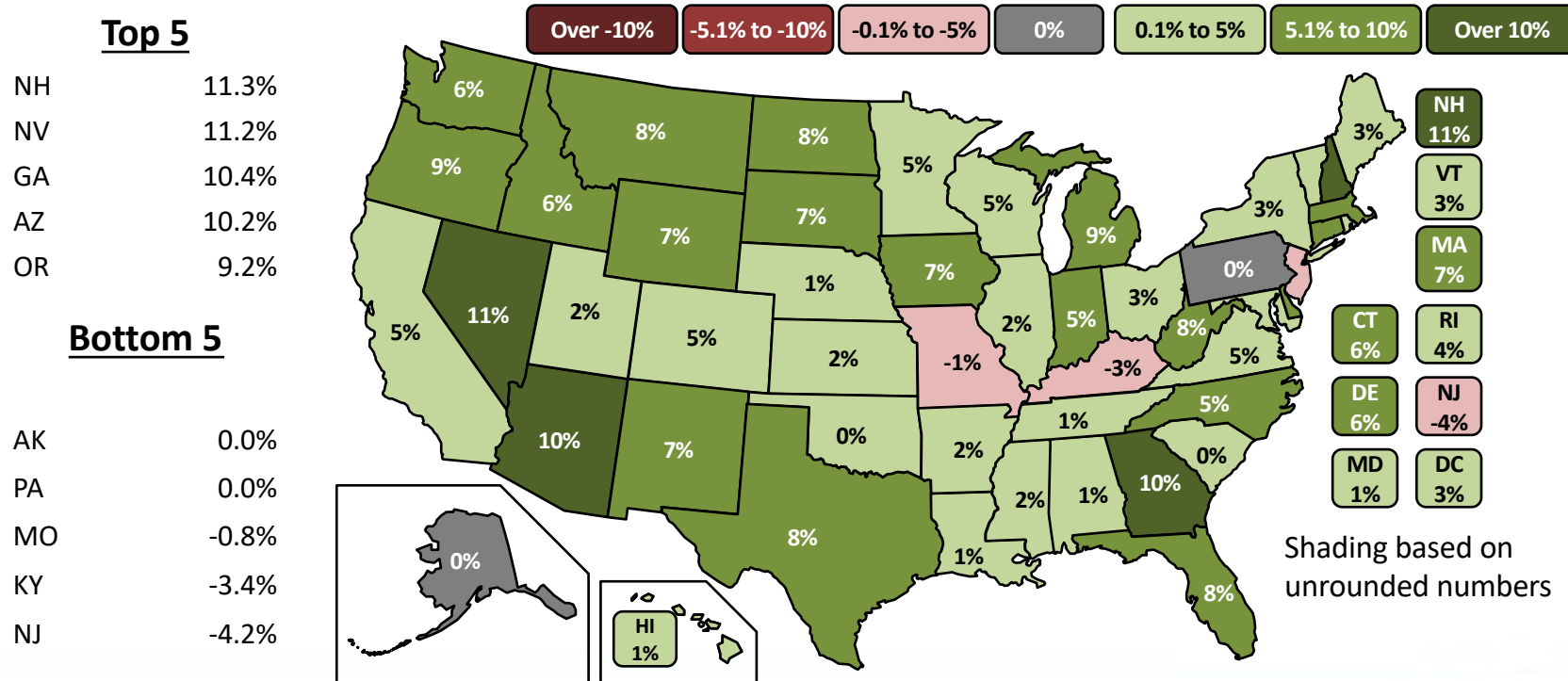
Source: U.S. Census Bureau construction spending report

Residential spending forecast--2018: 6-8% growth; 2019: 7-10% (12% in 2017)

- **SF--2018: 8-10% growth; 2019: 8-12%** (11% in 2017); rising interest rates, building costs, student debt will limit number of potential buyers
- **MF--2018: near 0; 2019: 2-5%** (-2% in 2017)
 - occupancy rates, rents have leveled off; but permits are rising, implying rebound in 2019
 - millennials are staying longer in cities and denser suburbs where MF construction is bigger share of market than in outer suburbs
 - nearly all MF construction is rental, not condo; more high-rises
- **Improvements--2018: 8-12% growth; 2018: 5-10%** (19% in 2017); rising number of seniors prefer remodeling to moving but interest cost, labor scarcity are barriers

State construction employment change (U.S.: 4.3%)

8/17 to 8/18: 45 states and DC up, 3 down



Source: BLS state and regional employment report

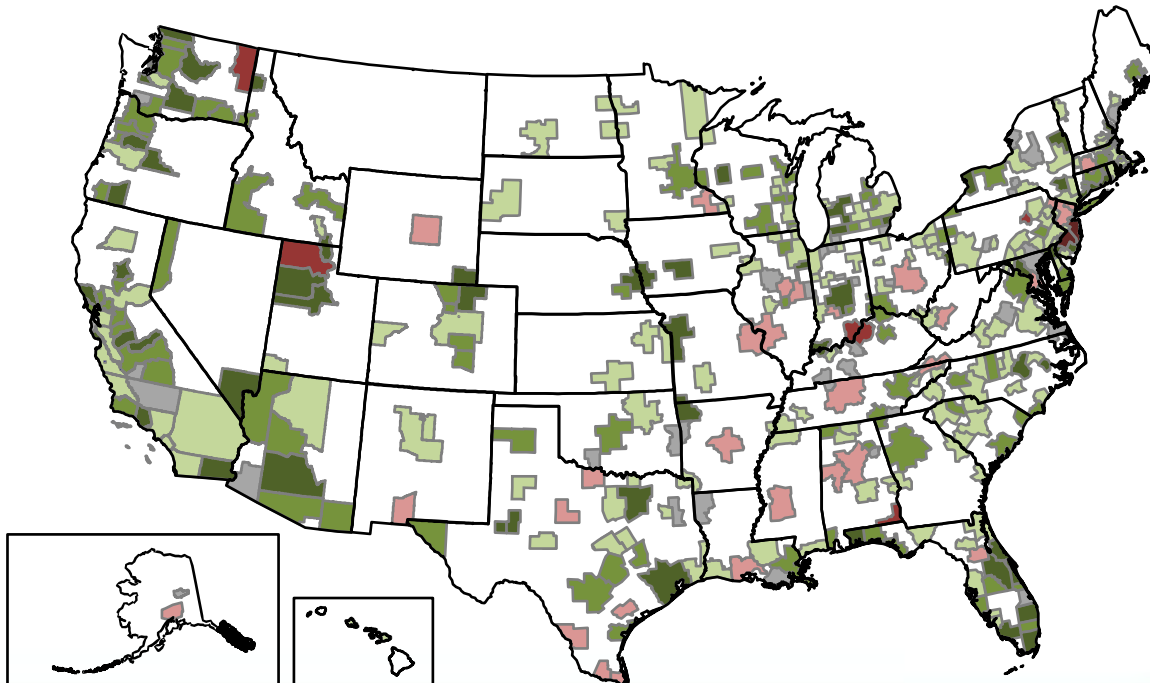
Metro construction employment change (U.S.: 4.3%)

8/17 to 8/18: 287 (80%) of 358 metros **up**, 36 unchanged, 35 (10%) **down**



Top 5

Merced, CA	32%
New Bedford, MA NECTA	26%
Midland, TX	24%
Weirton-Steubenville, WV-OH	22%
Wilmington, DE-MD-NJ Div.	18%

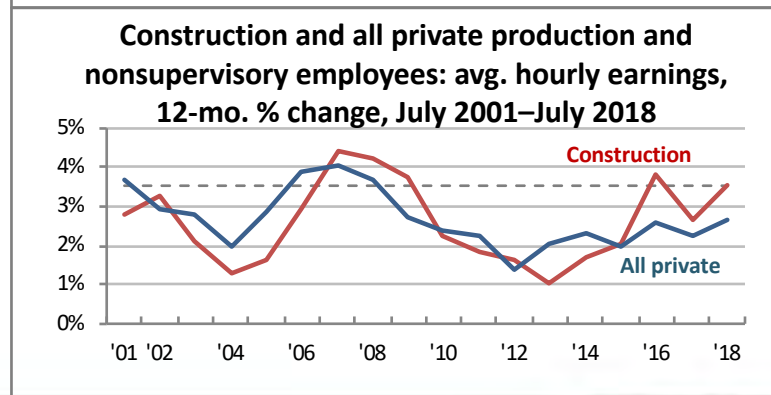
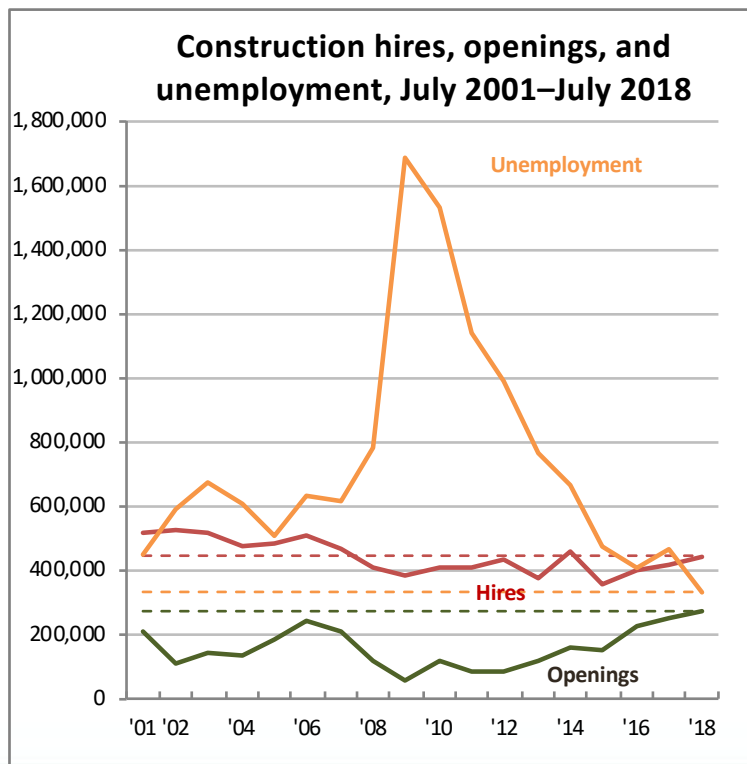


Bottom 5

Middlesex-Monmouth-Ocean, NJ	-11%
Camden, NJ Div.	-11%
Spokane-Spokane Valley, WA	-9%
Ogden-Clearfield, UT	-8%
Dothan, AL	-8%
Bloomsburg-Berwick, PA	-8%

Source: BLS state and regional employment report

Construction workforce indicators (not seasonally adjusted)

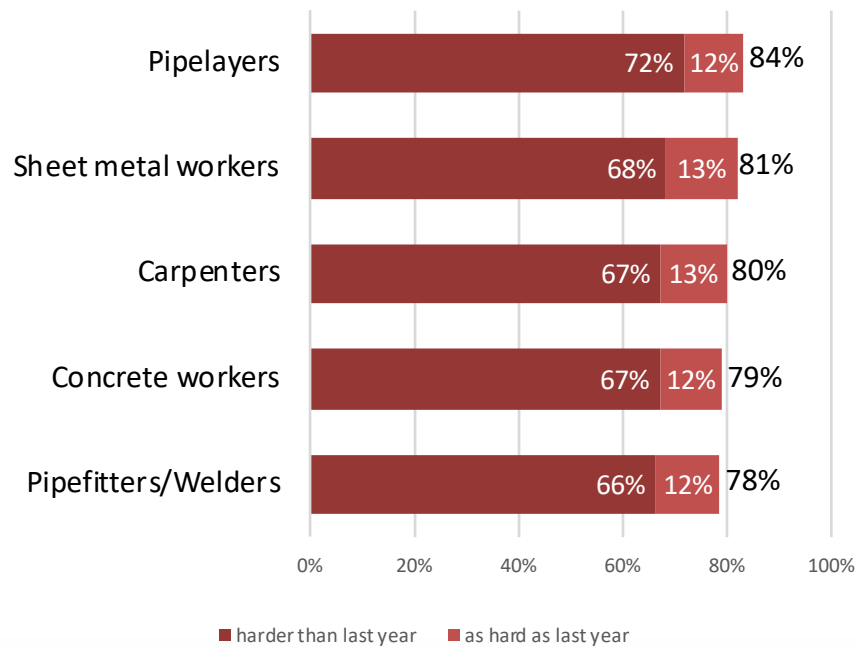


Source: Bureau of Labor Statistics

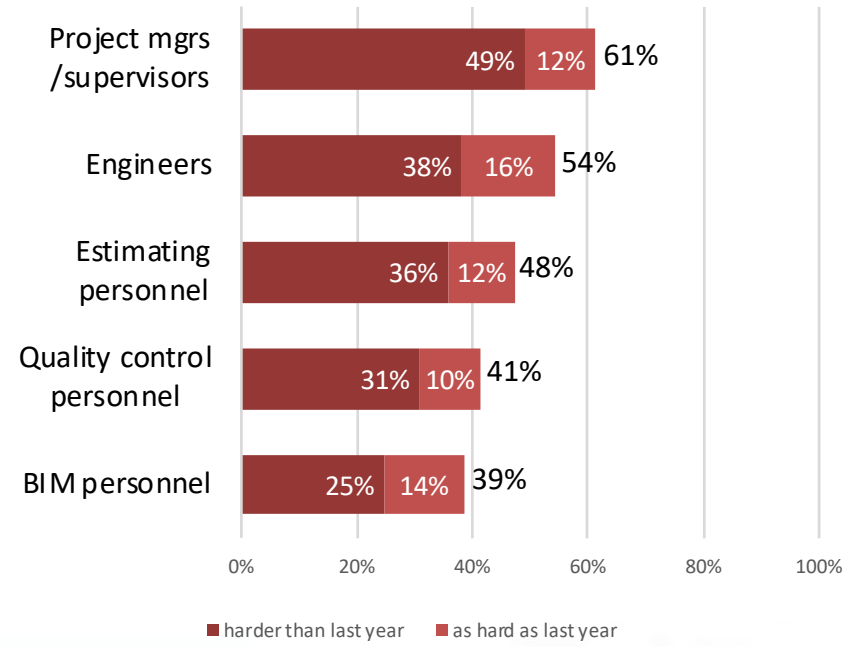
AGC Workforce Survey: hardest positions to fill

% of firms that employ a position and report difficulty filling:

Hourly craft (80% having trouble filling)

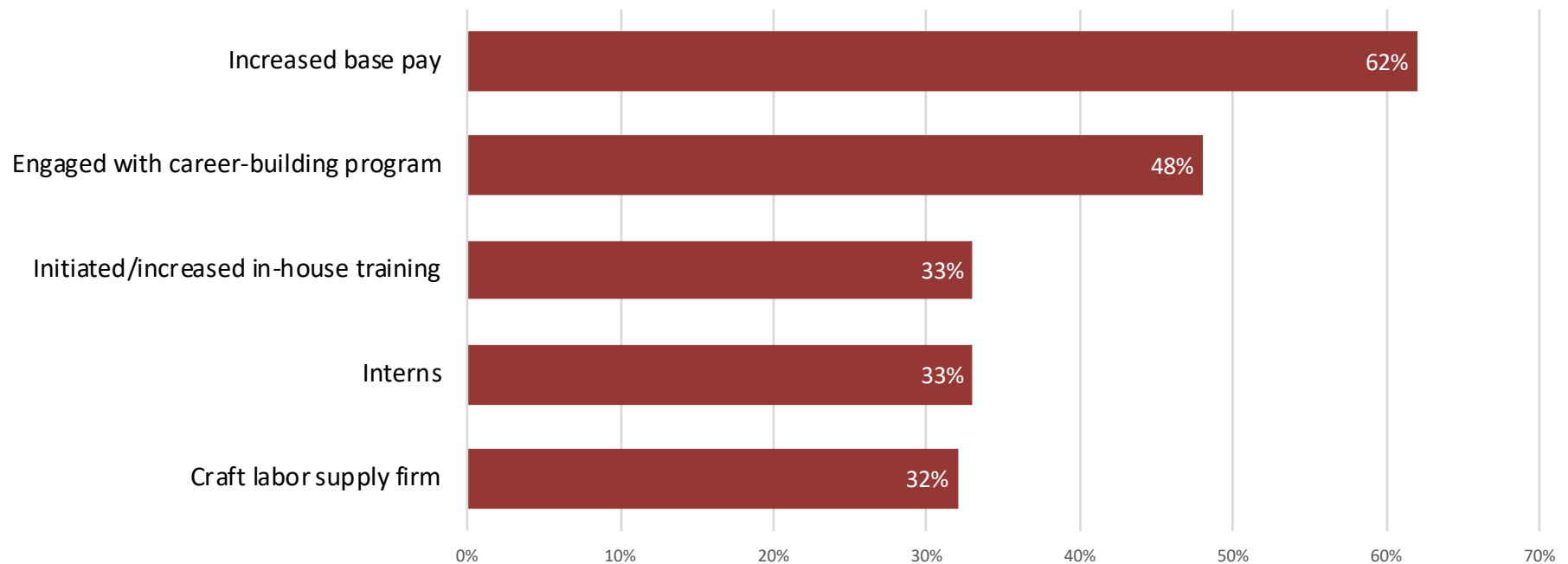


Salaried (56% having trouble filling)



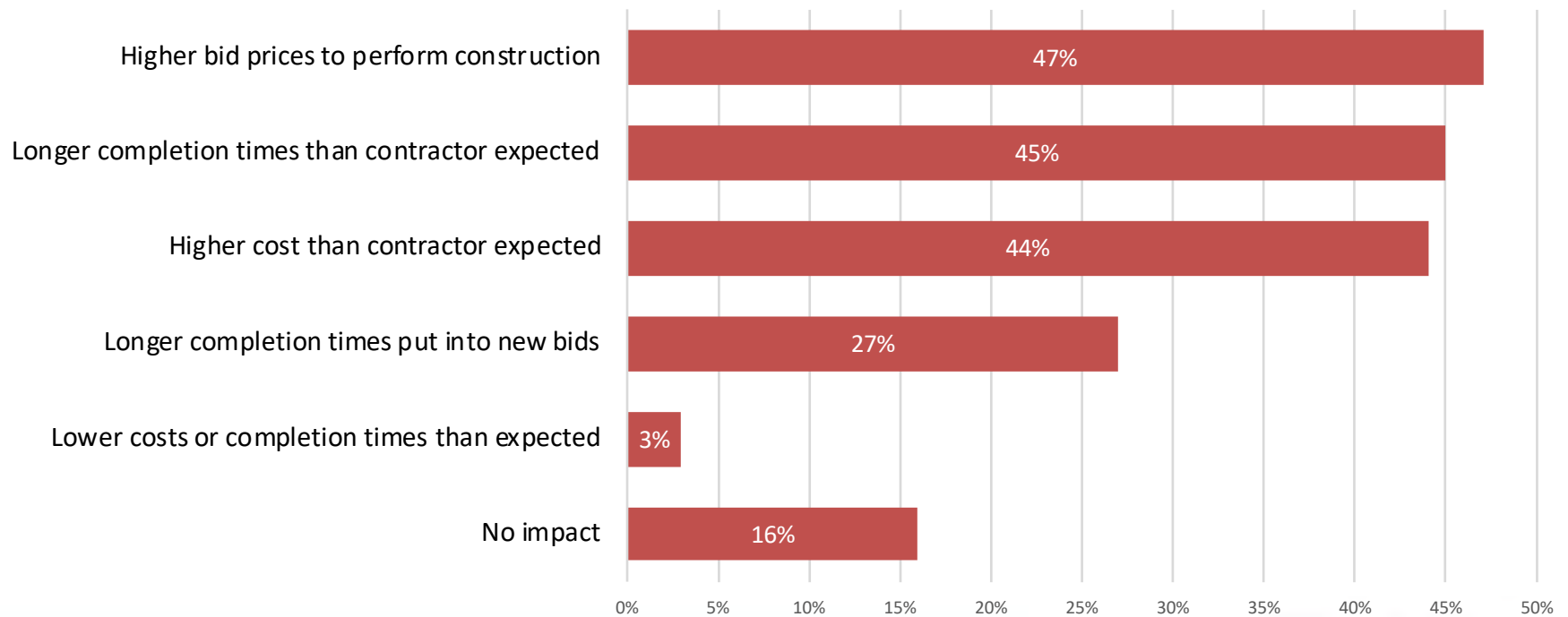
Source: AGC Workforce Survey, Aug. 2018

How firms are coping with craftworker shortages



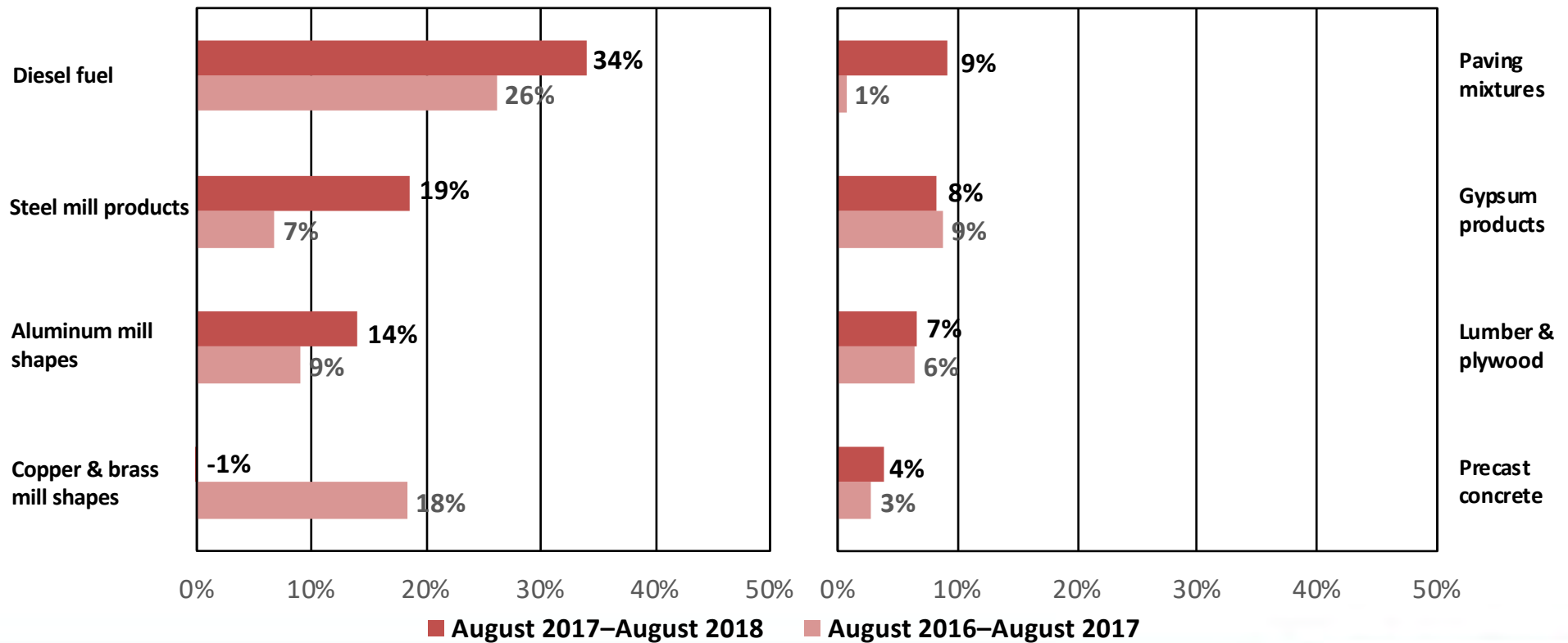
Source: AGC Workforce Survey, Aug. 2018

Impact on project costs and completion times



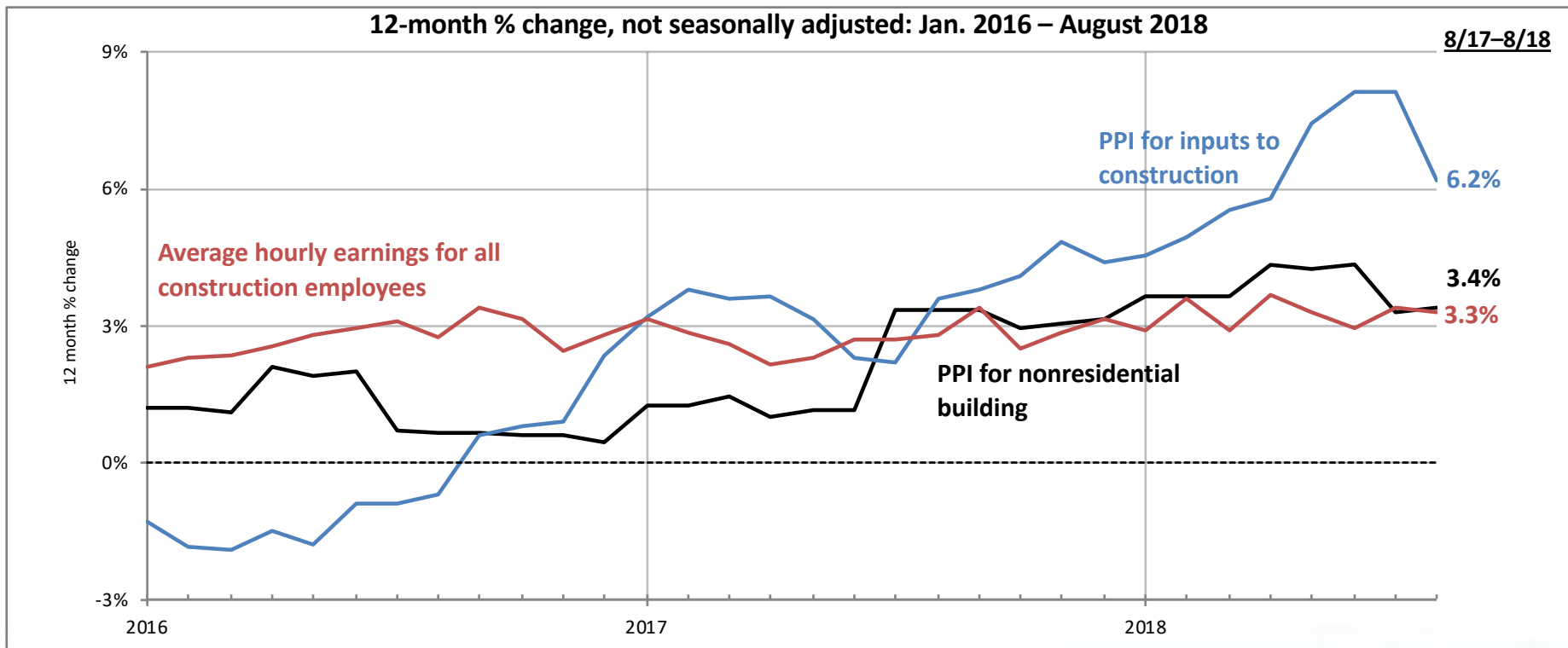
Source: AGC Workforce Survey, Aug. 2018

12-month change in producer price index for key inputs



Source: Bureau of Labor Statistics

Materials costs are rising faster than bid prices



Source: Bureau of Labor Statistics

2017 summary, 2018 and 2019 forecast

	2017 actual	8/18 year to date	2018 forecast	2019 forecast
Total spending	4%	5%	4-6%	5-8%
Private – residential	12%	7%	6-8%	7-10%
– nonresidential	1%	4%	3-5%	3-6%
Public	-3%	7%	5-7%	2-5%
Goods & services inputs PPI	4%	6%	4.5-5.5%	4-6%
Employment cost index	2.7%	3.0%*	3-4%	4-5%

* 8/17 to 8/18 **2017Q2 to 2018Q2

Source: actuals: Census, BLS; forecasts: Author's estimates



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

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CONSTRUCTION COSTS SURGE IN APRIL AS NEW TARIFFS AND OTHER TRADE MEASURES LEAD TO SIGNIFICANT INCREASES IN MATERIALS PRICES.
Association Officials Warn That the New Tariffs and Resulting Price Spikes Have the Potential to Undermine Benefits of Tax and Regulatory Reform; Urge Administration to Reconsider.

The cost of goods used in construction jumped in April at the fastest year-over-year rate since 2011, with ongoing increases for a wide range of building materials, including many that are subject to proposed tariffs that could drive prices still higher and cause shortages, according to an analysis by the Associated General Contractors of America of Labor Department data released today. Association officials said that the new data indicates many firms are already being squeezed by higher materials prices that they are unable to pass along to their customers.

"Contractors have started to boost the prices they charge, but they are falling further behind on the cost of materials they buy," said the association's chief economist, Ken Simonson. "This inflation poses two risks—either contractors will suffer decreased profit margins or project owners with fixed budgets will eat back on the projects they undertake."

The producer price index for inputs to construction industries, goods—a measure of all materials used in construction projects including items consumed by contractors, such as diesel fuel—rose 1.0 percent in April alone and 1.2 percent over 12 months. The year-over-year figure was the steepest since 2011, a record economic boost.

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Construction employment rises in 80% of metros; survey finds optimism despite dip in starts

Construction employment, not seasonally adjusted, increased between August 2017 and August 2018 in 287 (80%) of the 358 **metro areas** (including divisions of larger metros) for which the Bureau of Labor Statistics (BLS) provides construction employment [data](#), fell in 35 (10%) and was unchanged in 36, according to an AGC [analysis](#) posted today. (BLS combines mining and logging with construction in most metros to avoid disclosing data about industries with few employers.) That was the most metros with year-over-year increases since December 2014. The largest gains again occurred in Houston-The Woodlands-Sugar Land (28,900 construction jobs, 14%), the Dallas-Plano-Irving metro division (13,600 combined jobs, 10%) and Phoenix-Mesa-Scottsdale (13,600 construction jobs, 12%). The largest percentage gains again occurred in Merced, Calif. (32%, 800 combined jobs), followed by New Bedford, Mass. (26%, 700 combined jobs); Midland, Texas (24%, 7,000 combined jobs) and Weirton-Steubenville, W.Va.-Ohio (22%, 400 combined jobs). The largest job losses again were in the Middlesex-Monmouth-Ocean, N.J. division (-4,500 combined jobs, -11%), followed by the Camden, N.J. division (-2,600 combined jobs, -11%); St. Louis, Mo.-Ill. (-2,600 combined jobs, -4%); the Newark, N.J.-Pa. division (-2,400 combined jobs, -5%) and Nashville-Davidson—Murfreesboro—Franklin (-2,200 combined jobs, -5%). The largest percentage losses (-11% each) occurred in Camden and Middlesex-Monmouth-Ocean, followed by Spokane-Spokane Valley, Wash. (-9%, -1,300 combined jobs). Employment was at a record high for August in 70 metros (dating back in most areas to August 1990), the most August peaks since 2006; two areas set a new August low.

Investment analyst Thompson Research Group [reported](#) today that its third-quarter “contractor and surety survey continues to indicate that the **non-res construction** market is strong and the outlook is positive, with multiple sectors underpinning the strength....Many surety respondents believe we are still in the middle...of the growth cycle. To this point, and looking forward, the main challenges continue to be factors of constraint (labor and inflation in materials and freight costs), not demand. The majority of respondents’ feedback points to robust activity continuing through the remainder of 2018 and 2019.”

For the second month in a row, the **value of new construction starts** in August fell 9% at a seasonally adjusted annual rate, construction data provider Dodge Data & Analytics [reported](#) on Monday. “Weaker activity was reported in August for nonresidential building, down 19%, and residential building, down 7%. On the plus side, nonbuilding construction in August advanced 6%, reflecting a steady performance by public works as well as improvement for electric utilities following depressed activity earlier this year. During the first eight months of 2018, total construction starts on an unadjusted basis were...up 1% from a year ago. The year-to-date performance for total construction was restrained by a 45% drop for the electric utility/gas plant category. If the electric utility/gas plant category is excluded, total construction starts in this year’s first eight months would be up 4% compared to the same period of 2017.”

“**Construction costs** increased for the 23rd straight month in September,” consultancy IHS Markit and the Procurement Executives Group (PEG) [reported](#) on Wednesday. **Price increases for materials and equipment** “were stronger in 9 of the 12 subcomponents in September [and lower in two] compared to last month; 11 out of 12 categories remained above the neutral threshold of 50. The biggest gain was in electrical equipment. The biggest loss was in the index for copper-based wire and cable, for which the index dropped below 50 after almost two years of recording increasing prices....Current **subcontractor labor prices** increased at a faster pace this month, with the index...marking the 14th straight month of increasing prices....The majority of survey respondents signaled current subcontractor labor pricing was unchanged from August, though more respondents experienced higher prices.”

Construction input costs are likely to be affected in the near future by the aftermath of **Hurricane Florence** and by **tariffs** that went into effect on Monday on several thousand products from China, including hundreds of materials, parts and tools used in construction. The tariff rate is currently 10% but is scheduled to increase to 25% on January 1. How much and how soon a tariff affects the cost or availability of any item depends on whether alternative items or sources of supply are available and how quickly existing inventories are depleted. Meanwhile, flooding following the hurricane continues to disrupt road and rail transport through the Carolinas. Distributor New South Construction Supply [reported](#) on Tuesday in its monthly e-newsletter, “There were few manufacturers of construction materials we distribute that increased prices or announced future price increases in September, until President Trump announced [the latest tariffs]. The impact from Hurricane Florence slowed economic activity, especially in North and South Carolina, and will impact costs for lumber and other construction products....As has been the case for the past few months, domestic **rebar prices** were unchanged in September and most analysts do not expect domestic mills to increase prices in October. Most mills rollings’ are sold out through mid- to late October and some mills are sold out of some of the most popular diameters until mid-November.” Readers are invited to submit information on the impacts of tariffs or the hurricane to simonsonk@agc.org.