

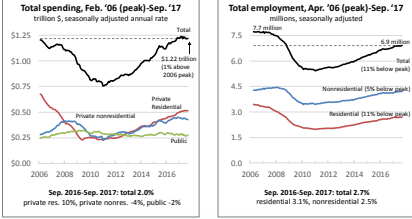
Quality People. Quality Projects.

**Construction Spending, Labor and Materials Outlook**

NGWA Groundwater Week  
Nashville, December 7, 2017  
Ken Simonson  
Chief Economist, AGC of America

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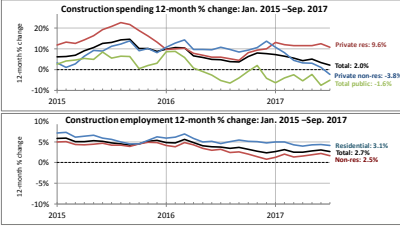
### Construction spending & employment, 2006-2017



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

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### Construction spending & employment, 2015-2017



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

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### Possible storm/flood impacts on construction

- Immediate demand for plywood, wallboard, laborers, trucks
- Increased demand for new single- and multifamily housing; reconstruction of commercial, public buildings, infrastructure
- But most rebuilding will take years to get funding, design, regulatory approvals
- Meanwhile, businesses and individuals who would have built cancel or defer projects that they can't afford/don't need; public \$ is reallocated
- Net: selectively higher materials, labor costs; little change in spending

Source: Author

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### Nonresidential segments: year-to-date change, 2017-18 forecast

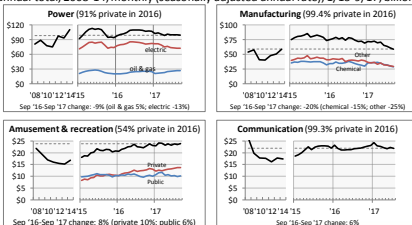
	Jan.-Sept. '17 vs. '16	Full-year 2017 forecast	2018 forecast
<b>Nonresidential total (public+private)</b>	<b>-1%</b>	<b>1-3%</b>	<b>1-5%</b>
Power (incl. oil & gas field structures, pipelines)	-5	-3 to -5	positive
Highway and street	-4	-1 to -3	small pos.
Educational	1	1 to 3	positive
Commercial (retail, warehouse, farm)	15	10 to 12	less pos.
Manufacturing	-13	-10 to -12	flat
Office	7	4 to 6	less pos.
Transportation	0	0 to 2	small pos.
Health care	2	2 to 4	small pos.
Lodging	7	5 to 7	negative
Sewage & waste disposal	-18	-15 to -18	
Other - amusement; communication; religious; public safety; conservation; water: 13% of total	0	-1 to 1	

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

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### Construction spending: industrial, heavy

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-9/17; billion \$



Source: U.S. Census Bureau construction spending report

**Key points: power & energy, mfg, amusement & recreation**

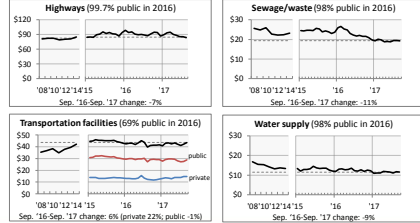
- Solar, wind power are growing again; expect more gas-fired plants, natural gas pipelines into '18
- Manufacturing construction recovery in '18 depends on policy impacts, especially trade and tax
- Amusement & recreation spending is very “lumpy”—a few big stadiums at irregular intervals; but funding for local, state, federal parks keeps eroding

Source: Author



**Construction spending: public works**

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-9/17; billion \$



Source: U.S. Census Bureau construction spending report



**Key points: roads, transportation, sewer/water**

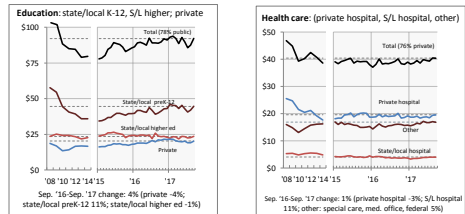
- State highway funding and P3s gradually increasing but federal funding likely to be flat through 2018
- Many new and ongoing airport projects but no net increase likely in public funding for port, passenger rail or transit construction
- Huge declines in water & sewer spending in 2017: hard to explain and unlikely to be repeated

Source: Author

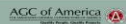


**Construction spending: education, health care**

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-9/17; billion \$



Source: U.S. Census Bureau construction spending report



**Key points: education & health care**

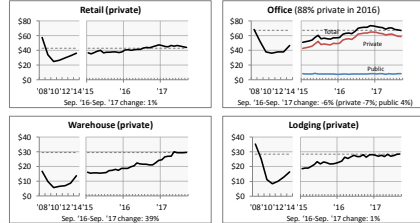
- Rising house & commercial property values are supporting school district tax receipts & bond issues for preK-12 projects
- Higher-ed enrollment declined 21% from 2011 to 2016, so colleges need fewer dorms & classrooms; apts. (multifamily) replacing dorms (educational construction)
- Rising stock prices help private school & college capital campaigns
- Health care spending is shifting from hospitals to special care facilities (standalone urgent care, surgery, rehab, hospices)

Source: Author



**Construction spending: developer-financed**

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-9/17; billion \$



Source: U.S. Census Bureau construction spending report



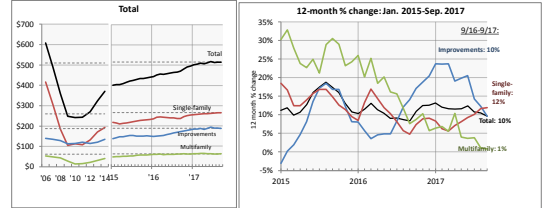
**Key points: retail, warehouse, office, hotel, data centers**

- Retail now tied to mixed-use buildings & renovations, not standalone stores or shopping centers; massive store closings imply downturn in '18
- 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: more competition from Airbnb; fewer foreign visitors?
- Data centers remain a strong niche but no data available on how strong

Source: Author



**Private residential spending: steady single-family growth, slower multifamily**  
annual total, 2006-14; monthly (seasonally adjusted annual rate), 1/15-9/17; billion \$



Source: U.S. Census Bureau construction spending report



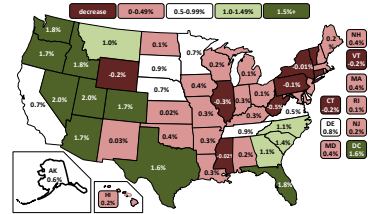
**Private residential spending forecast--2017: 7-9%; 2018: 6-9%**

- SF: **8-10% in 2017 & 2018**; ongoing job gains add to demand; but student debt and other credit impairments, limited supply of lots and labor will limit growth
- MF: **3-5% in 2017; near 0 in 2018**
  - occupancy rates, rents have leveled off; starts, permits are down from 2016
  - 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: **15-20% in 2017 & 2018**; unpredictable because Census lacks reliable data source; post-storm reconstruction may boost totals

Source: Author



**Population change by state, Aug. 2015-Aug. 2016 (U.S.: 0.70%)**

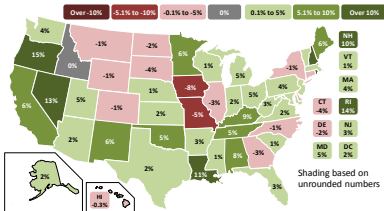


Source: U.S. Census Bureau



**State construction employment change (U.S.: 2.7%)**

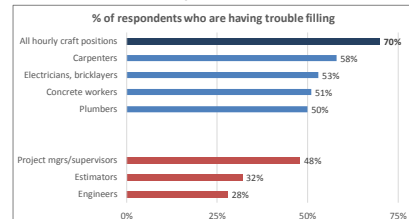
9/16 to 9/17: **35 states + DC up, 1 unchanged, 14 down**



Source: BLS data and regional employment report



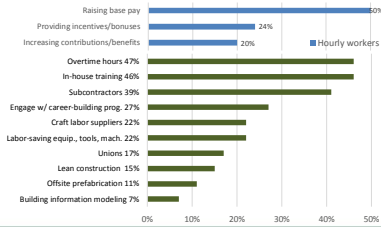
**Hardest positions to fill**



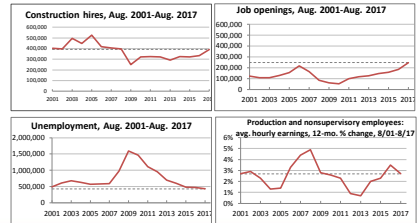
Source: ACC Member Survey, August 2016



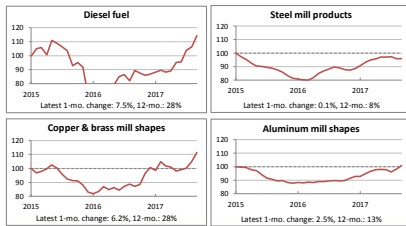
### How contractors are coping with worker shortages



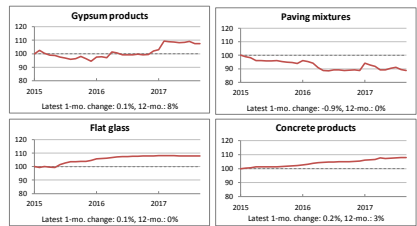
### Construction workforce indicators (not seasonally adjusted)



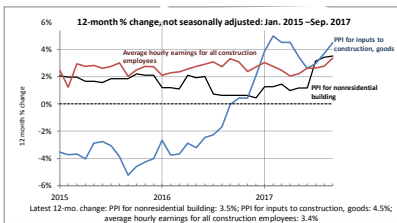
### Producer price indexes for key inputs, 1/15-9/17 (Jan. 2015=100)



### Producer price indexes for key inputs, 1/15-9/17 (Jan. 2015=100)



### Change in costs for buildings, material inputs and wages



### 2016 summary, 2017-18 forecast

	2016 actual	2017 forecast	2018 forecast
Total spending	6%	3-5%	2-7%
Private - residential	11%	7-9%	6-9%
- nonresidential	8%	2-4%	1-5%
Public	-1%	-4 to -6%	-3 to 3%
Goods & services inputs PPI	2%	2.5-3.5%	3-4%
Employment cost index	2.2%	2.5-3%	3-4%

### AGC economic resources

(email [simonsonk@agc.org](mailto:simonsonk@agc.org))

- *The Data Digest*: weekly 1-page email (subscribe at <http://store.agc.org>)
- monthly press releases: spending; PPI; national, state, metro employment
- yearly employment & outlook surveys, state and metro area data, fact sheets:  
[www.agc.org/learn/construction-data](http://www.agc.org/learn/construction-data)

