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# US Construction Spending, Labor and Materials Outlook

AGC National & Chapter Leadership Conference  
Washington, DC, September 24, 2017

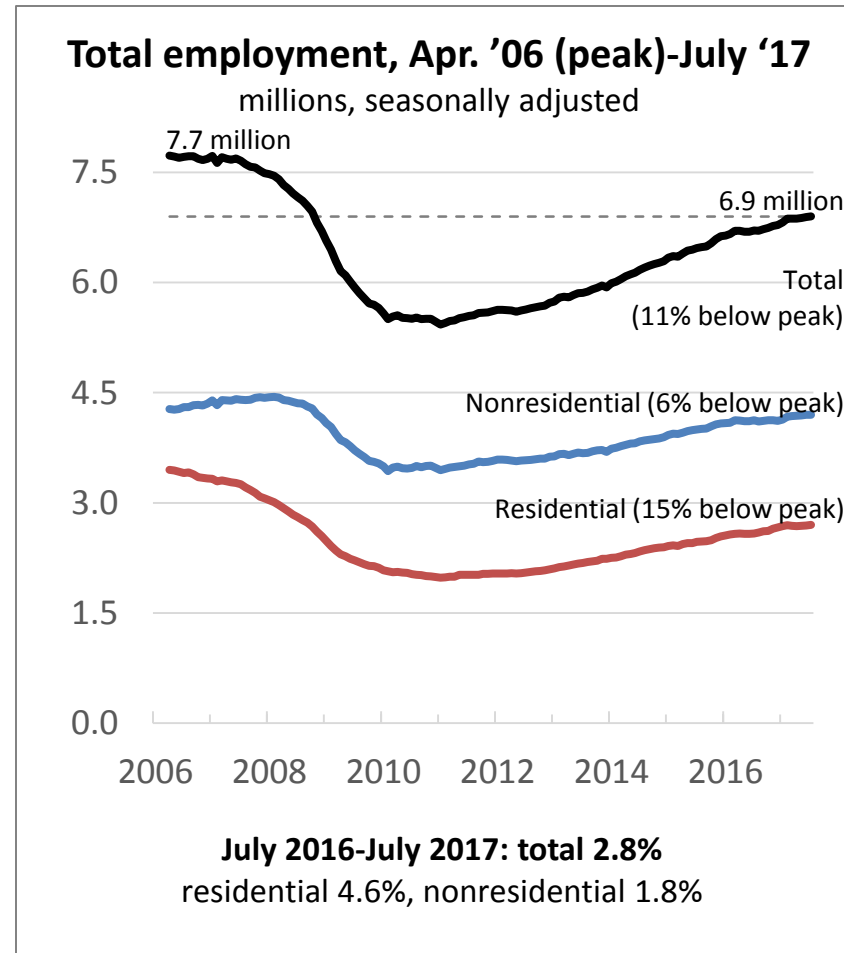
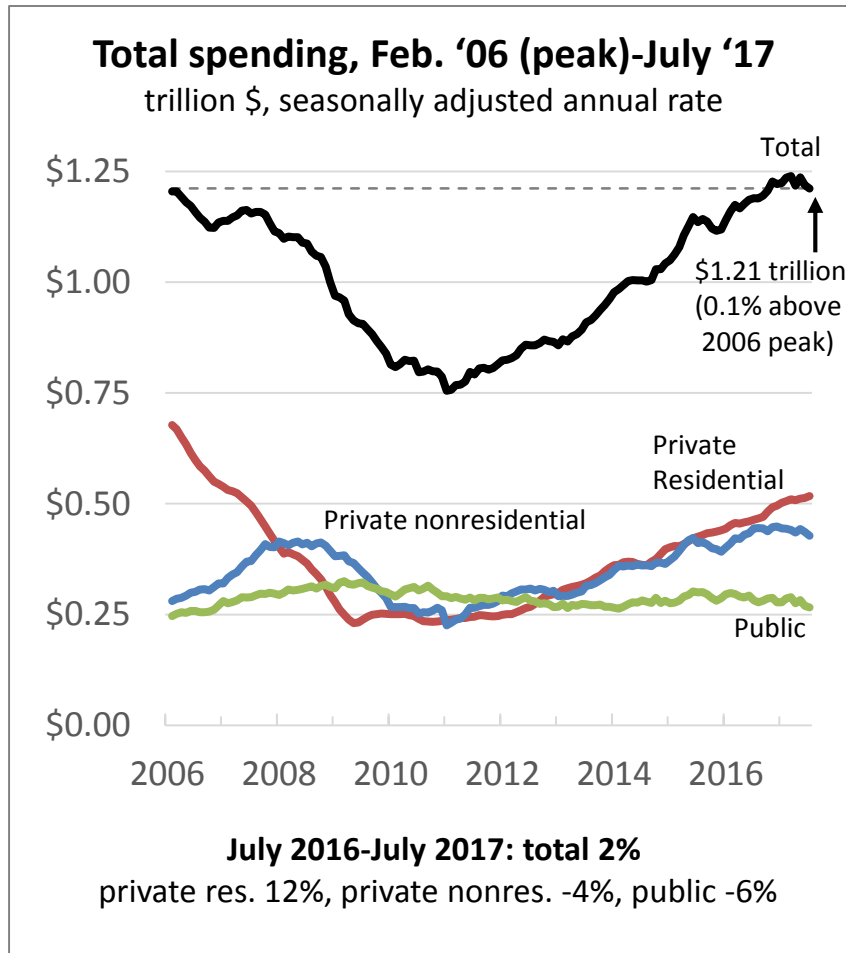
Ken Simonson

Chief Economist, AGC of America

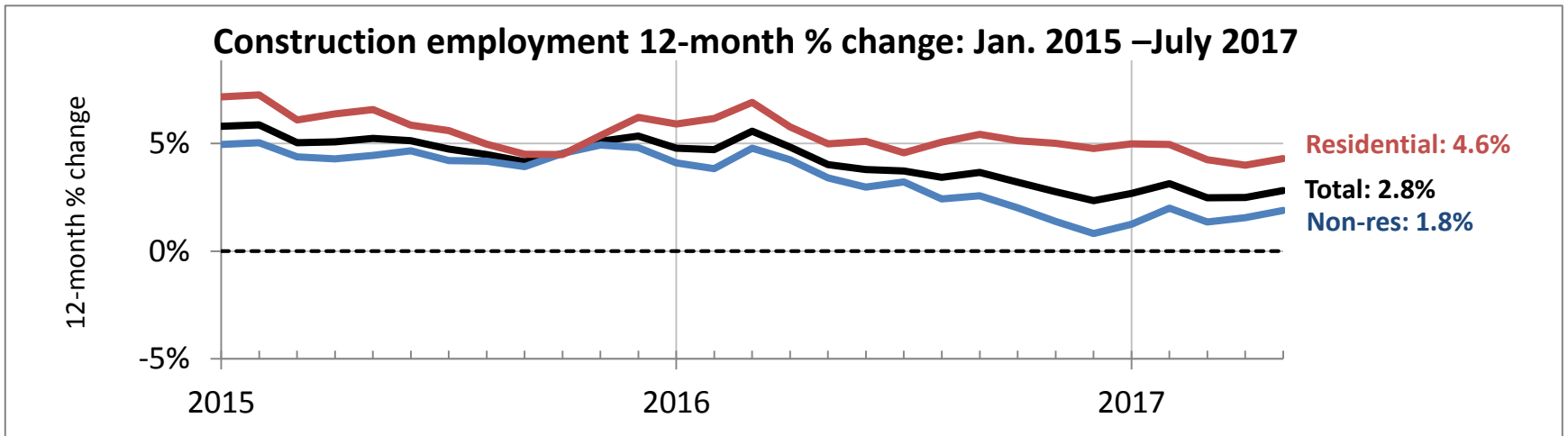
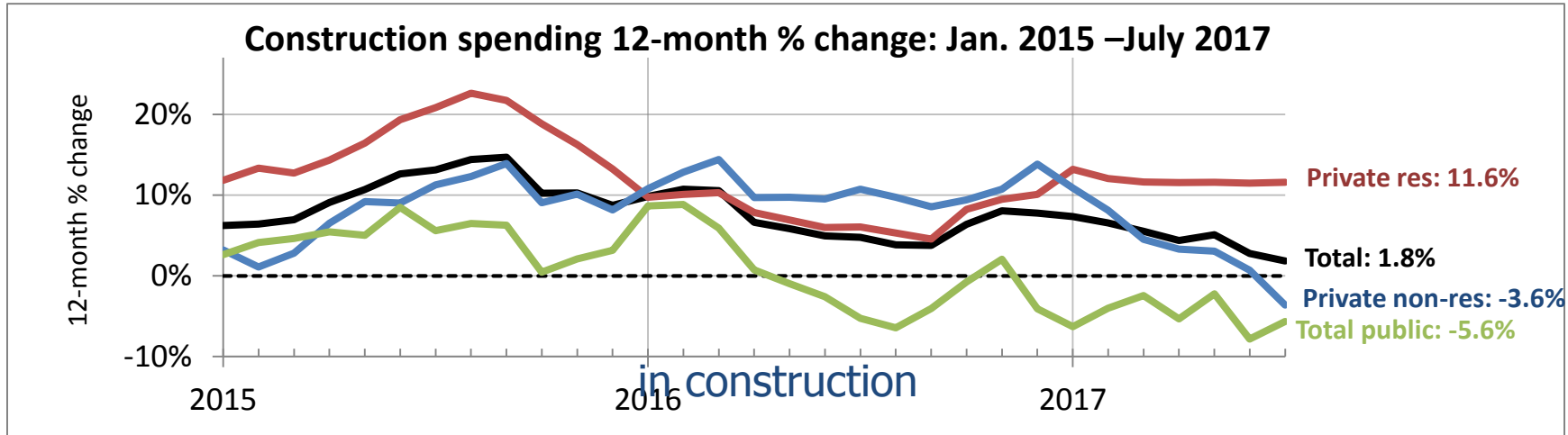
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# Construction spending & employment, 2006-2017



# Construction spending & employment, 2015-2017



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

## Possible storm/flood impacts on construction

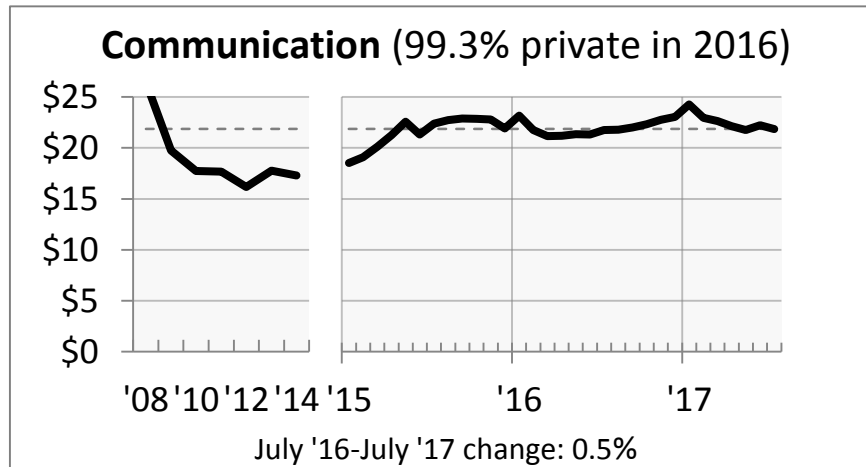
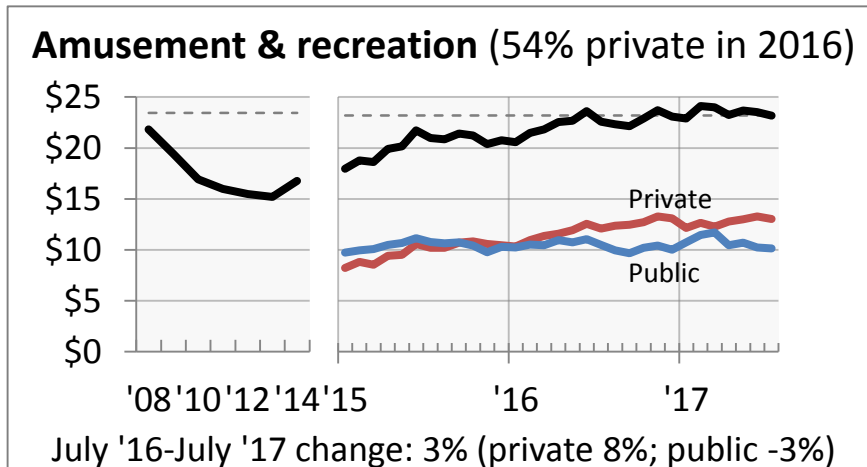
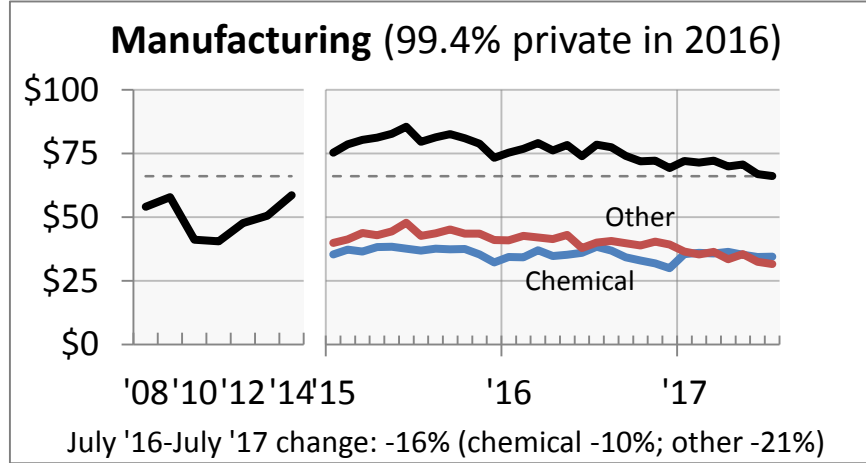
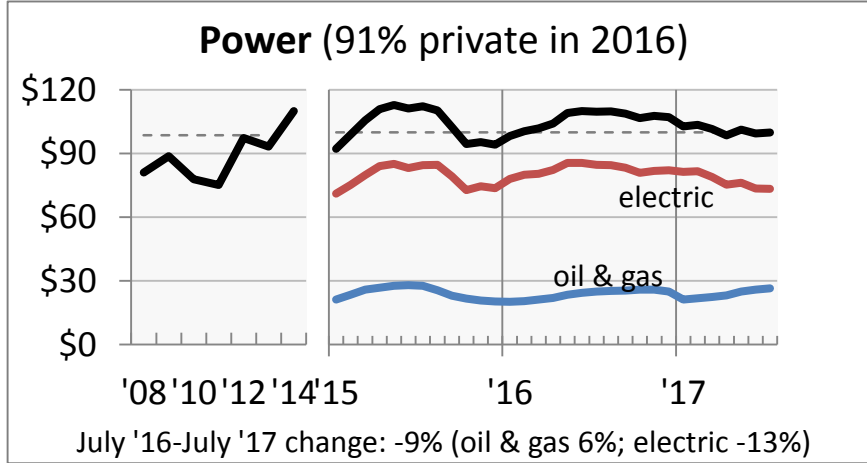
- Immediate demand for plywood, wallboard, laborers, trucks
- Increased demand for new single- and multifamily housing; reconstruction of commercial, public buildings, infrastructure
- But most rebuilding will take years to get funding, design, regulatory approvals
- Meanwhile, businesses and individuals 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

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

	<u>Jan.-July</u> <u>'17 vs. '16</u>	<u>Full-year 2017</u> <u>forecast</u>	<u>2018</u> <u>forecast</u>
<b><u>Nonresidential total (public+private)</u></b>	<b><u>0%</u></b>	<b><u>1-3%</u></b>	<b><u>1-5%</u></b>
Power (incl. oil & gas field structures, pipelines)	-4	-2 to 2	positive
Highway and street	-4	-4 to 0	flat
Educational	1	0 to 3	positive
Commercial (retail, warehouse, farm)	16	8 to 12	less pos.
Manufacturing	-10	-7 to -10	flat
Office	11	7 to 10	less pos.
Transportation	-1	-3 to 1	small pos.
Health care	1	-1 to 2	small pos.
Lodging	6	1 to 5	negative
Sewage & waste disposal	-20	-15 to -20	
Other--amusement; communication; religious; public safety; conservation; water: 11% of total	-1	-2 to 1	

# Construction spending: industrial, heavy

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-7/17; billion \$

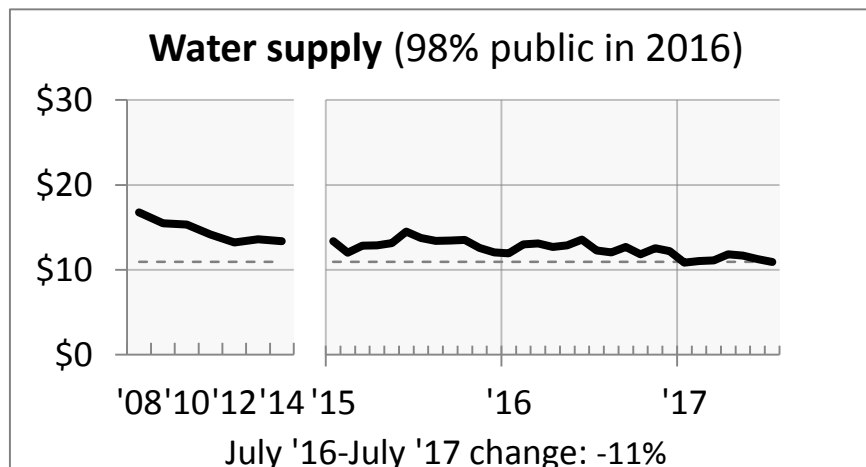
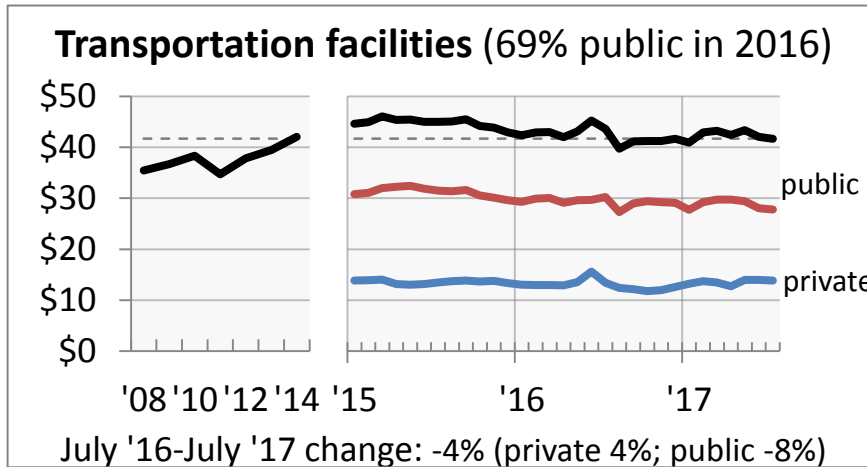
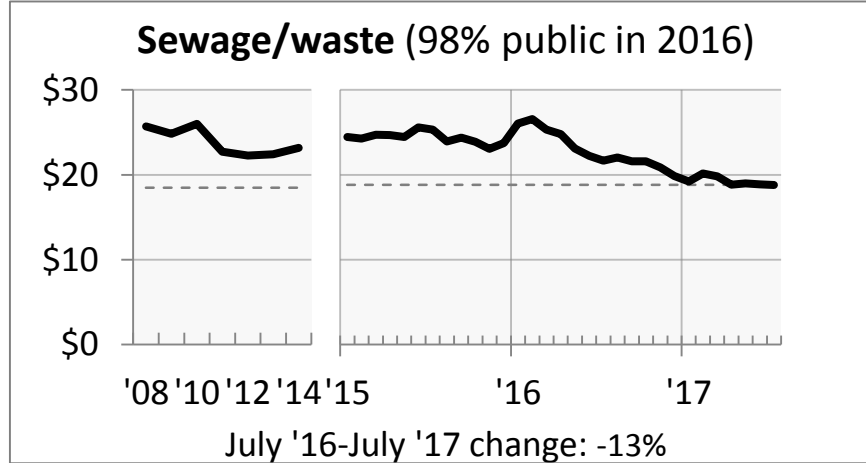
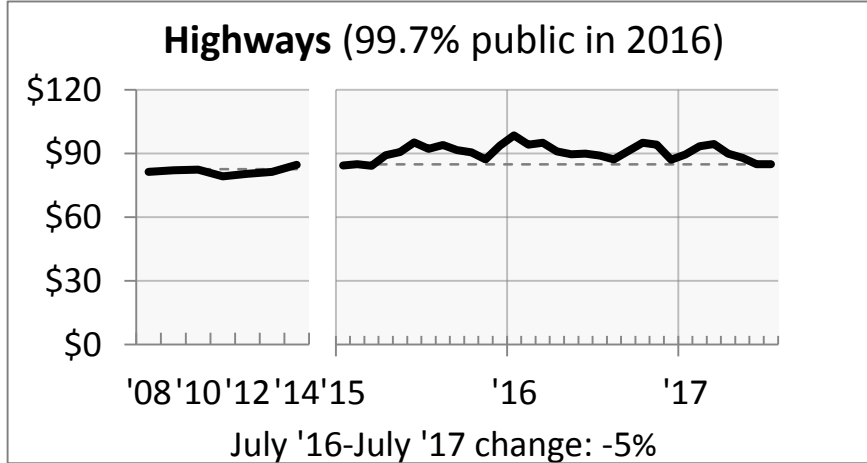


## **Key points: power & energy, mfg, amusement & recreation**

- 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

# Construction spending: public works

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-7/17; billion \$





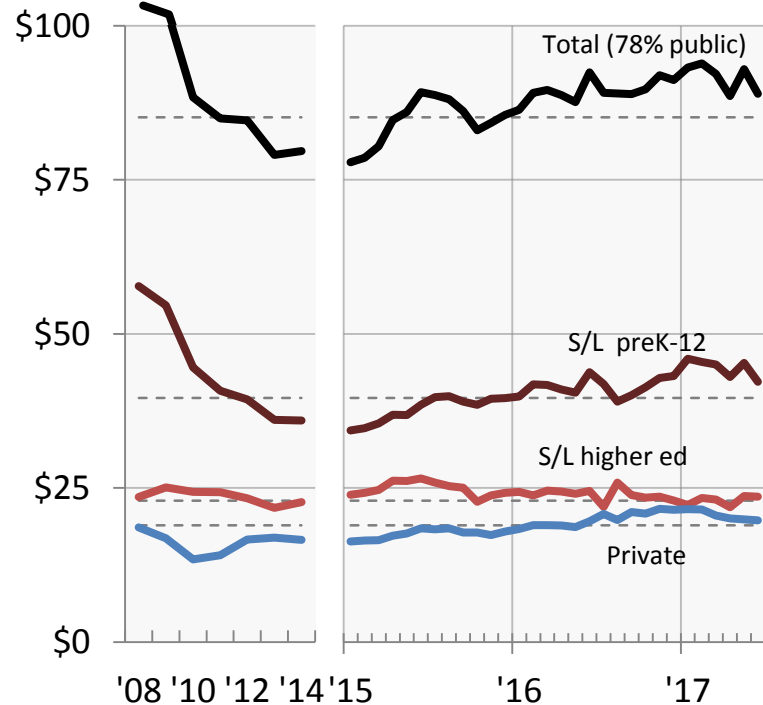
## Key points: roads, transportation, sewer/water

- State highway funding and P3s gradually increasing but federal funding likely to be flat through 2018
- Many new and ongoing airport projects but no increase likely in transit construction funding; storms may trigger port rebuilding
- Huge declines in water & sewer spending in 2017 hard to explain and unlikely to be repeated

# Construction spending: education, health care

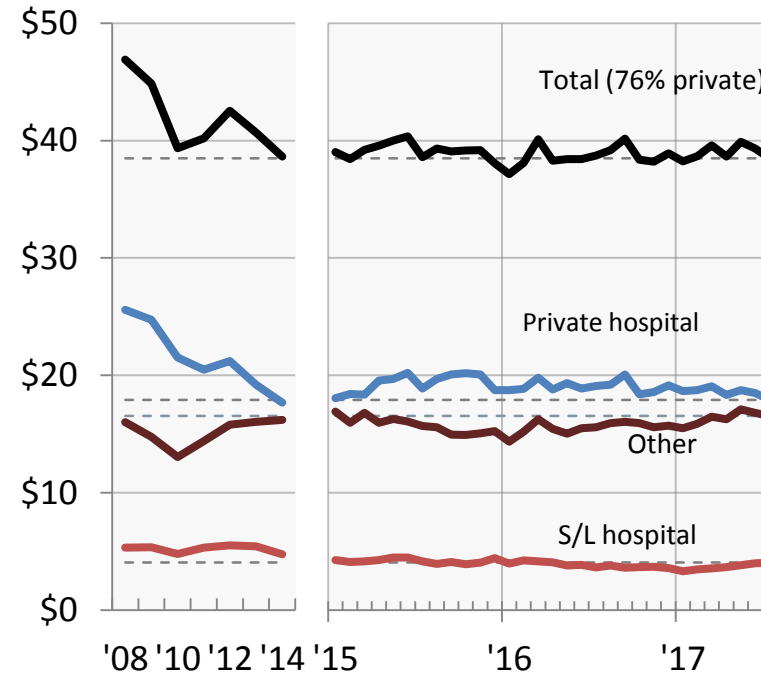
annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-7/17; billion \$

**Education:** state/local K-12, S/L higher; private



July '16-July '17 change: -4% (private -9%; state/local preK-12 -5%; state/local higher ed 4%)

**Health care:** (private hospital, S/L hospital, other)



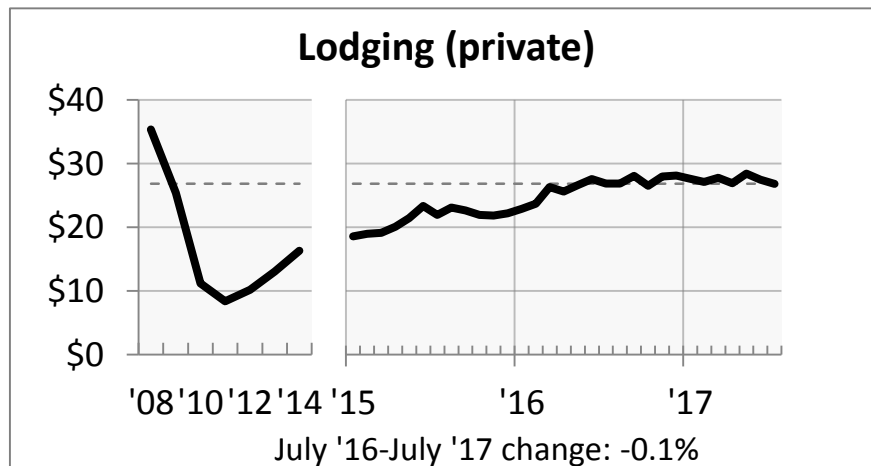
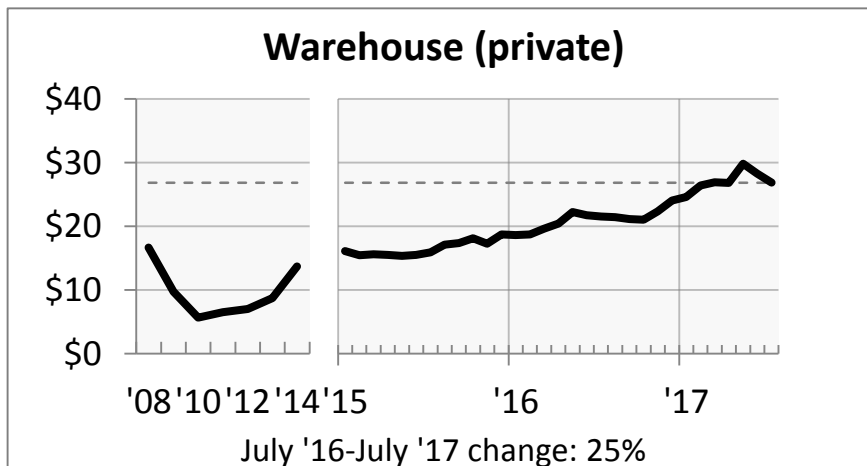
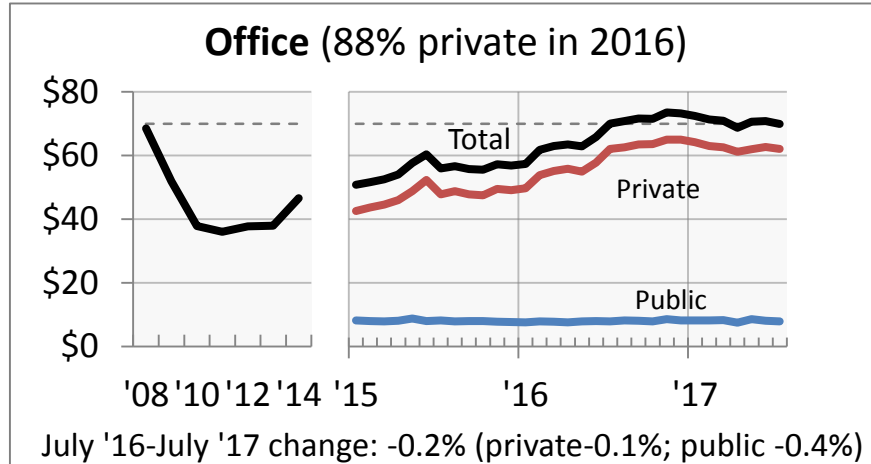
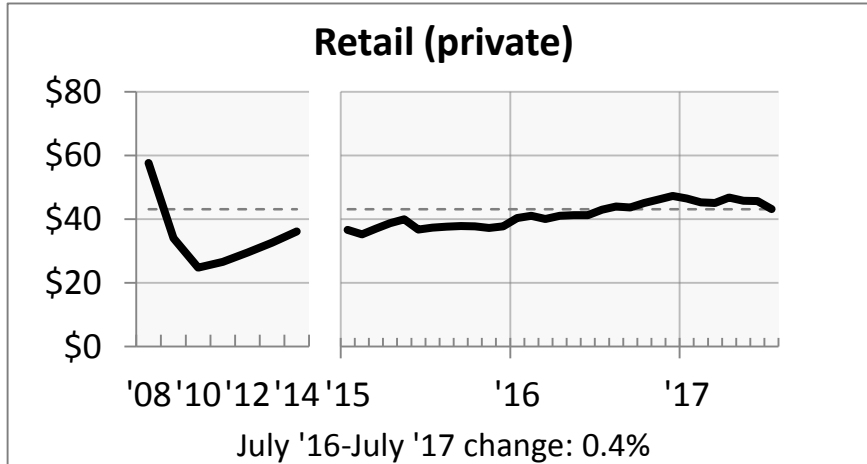
July '16-July '17 change : -1% (private hospital -6%; S/L hospital 12%; other: special care, med. office, federal 6%)

## Key points: education & health care

- Bond issues passed in 2014-16 should boost preK-12 projects through 2018
- Higher-ed enrollment declined 21% from 2011 to 2016, so colleges need fewer dorms & classrooms; apts. (multifamily) replacing dorms (educational construction)
- Hospitals may resume spending in 2018 if Affordable Care Act is left intact; demand should continue for special care facilities

# Construction spending: developer-financed

annual total, 2008-14; monthly (seasonally adjusted annual rate), 1/15-7/17; billion \$

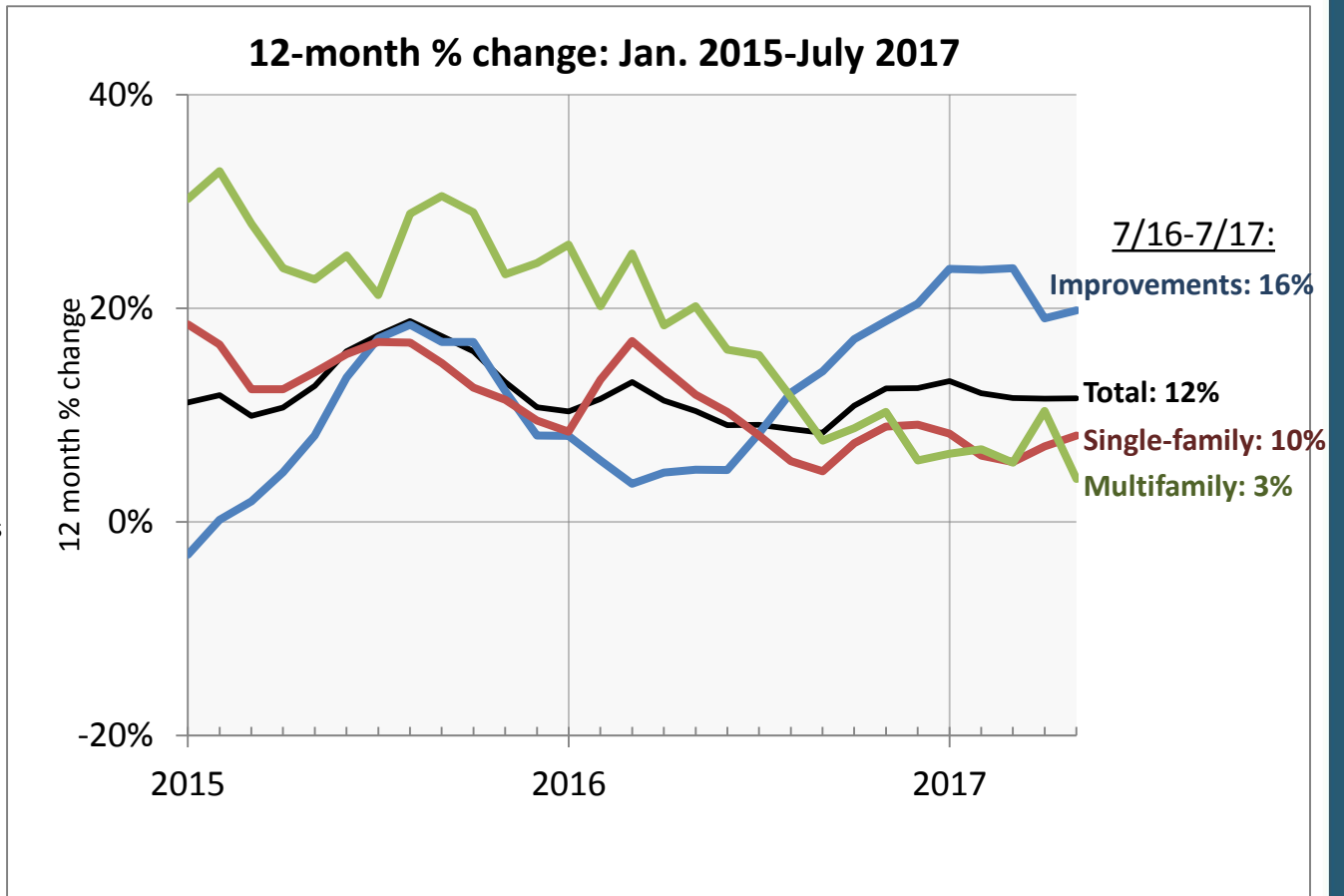
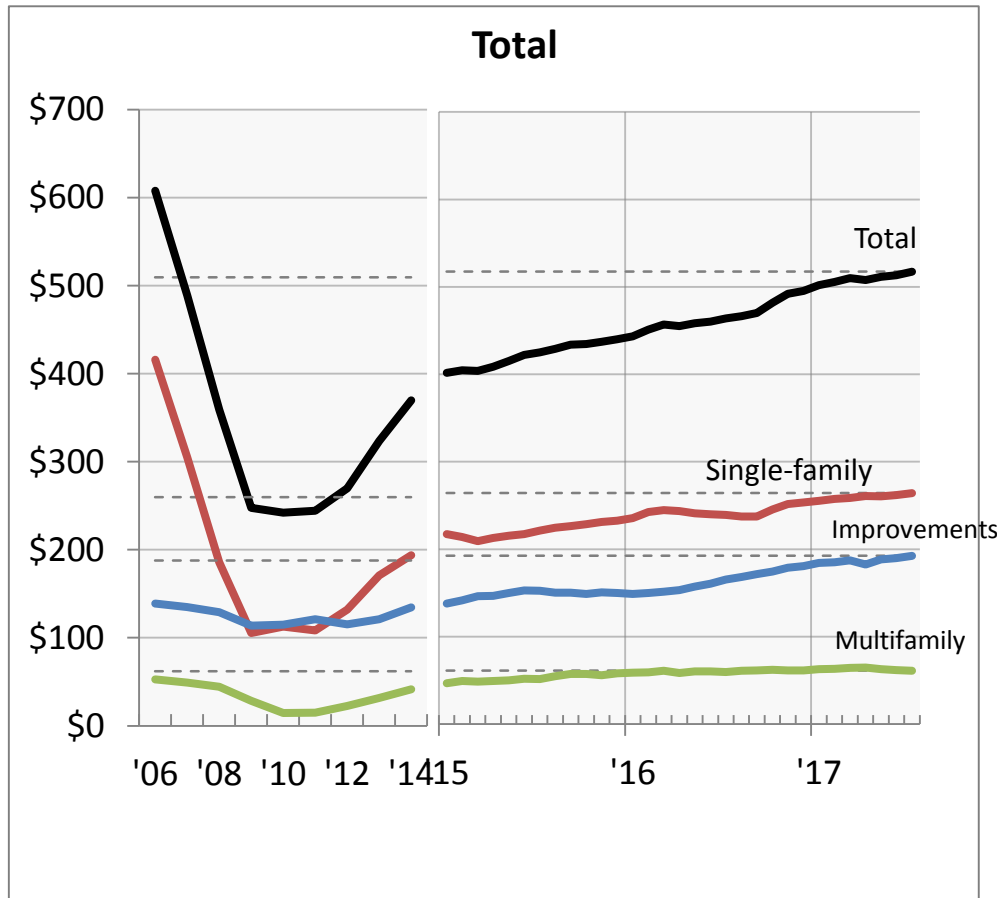


## **Key points: retail, warehouse, office, hotel, data centers**

- 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
- Office growth is slowing; employment still rising but space per worker is shrinking; more urban & renovation work than suburban office parks
- Hotel: flat since mid-2016; likely to drop as occupancy rates slip
- Data centers remain a strong niche but no data available on how strong

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

annual total, 2006-14; monthly (seasonally adjusted annual rate), 1/15-7/17; billion \$

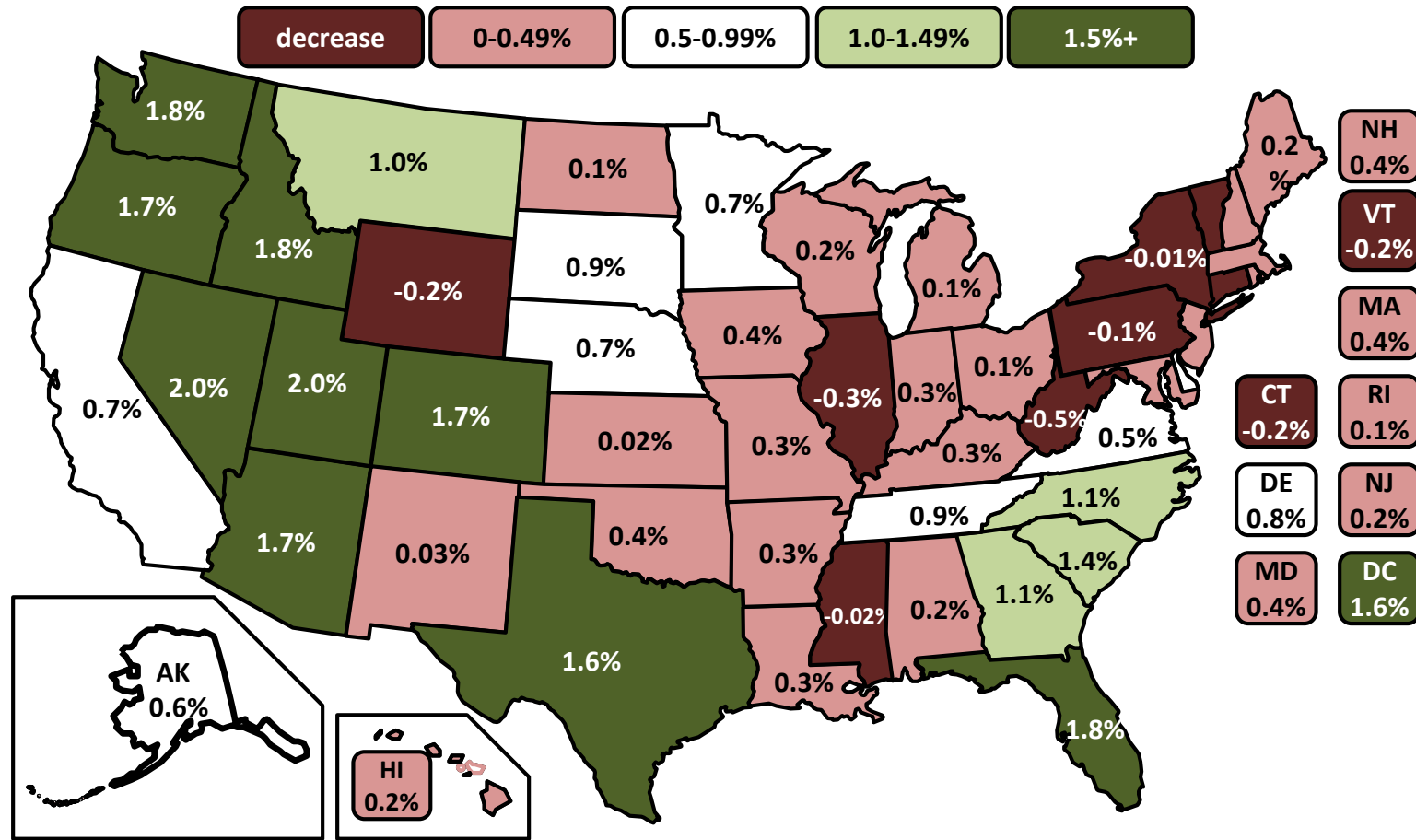


Source: U.S. Census Bureau construction spending report

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

- SF: **7-9% 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, 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: **10-15% in 2017 & 2018**; unpredictable because Census lacks reliable data source; post-storm reconstruction may boost totals

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

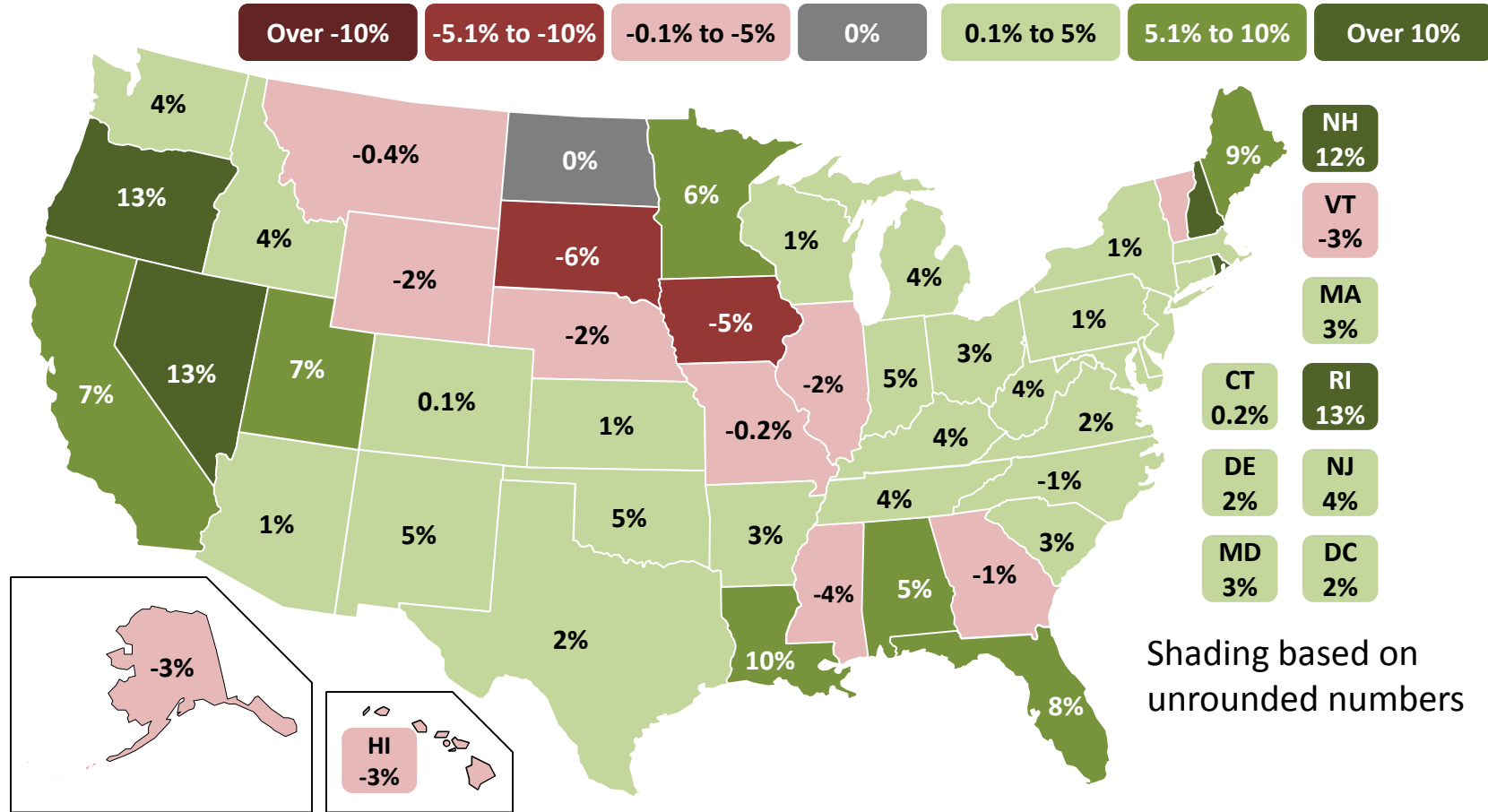


Source: U.S. Census Bureau



# State construction employment change (U.S.: 2.8%)

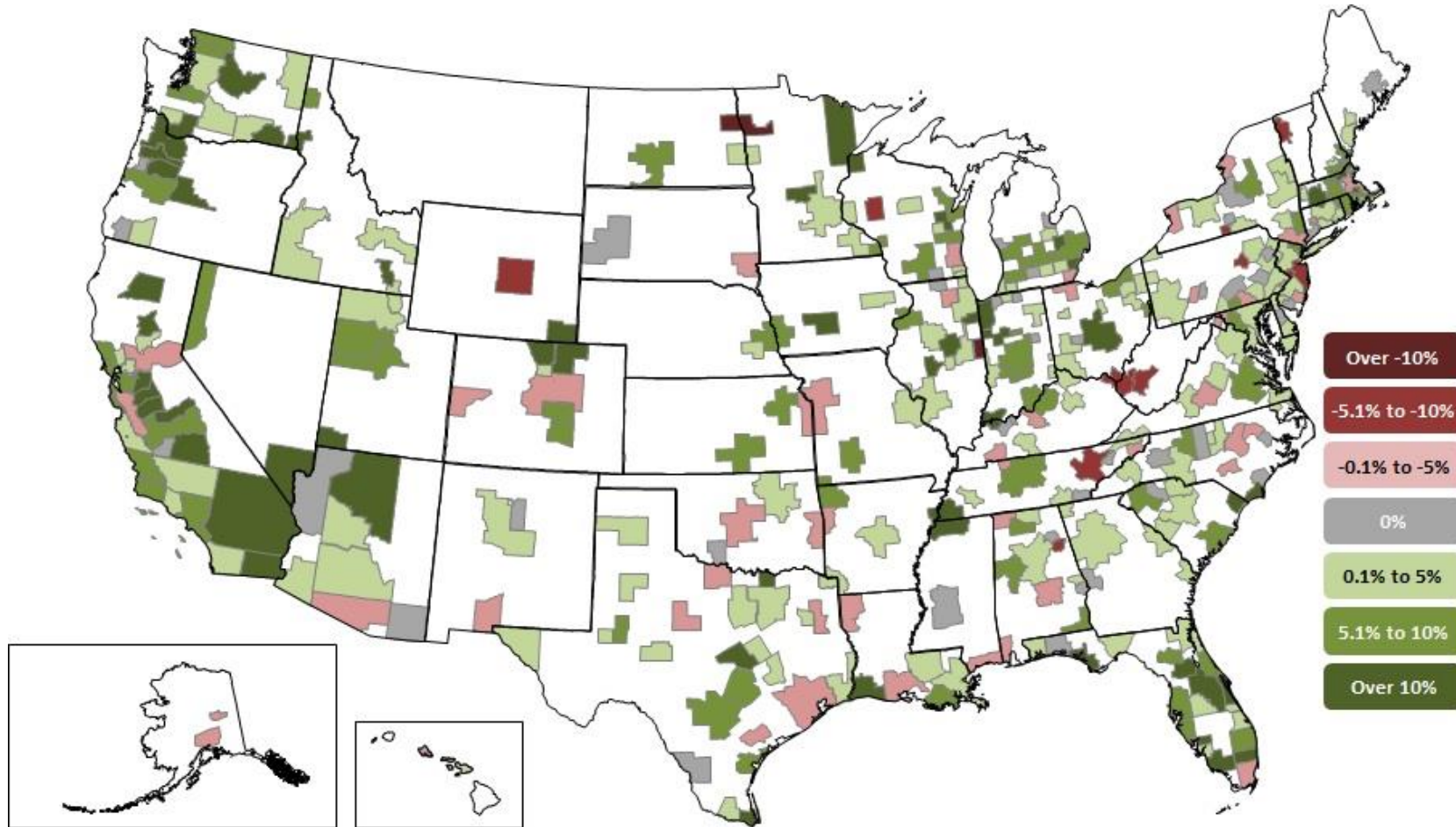
7/16 to 7/17: 36 states + DC up, 1 unchanged, 13 down



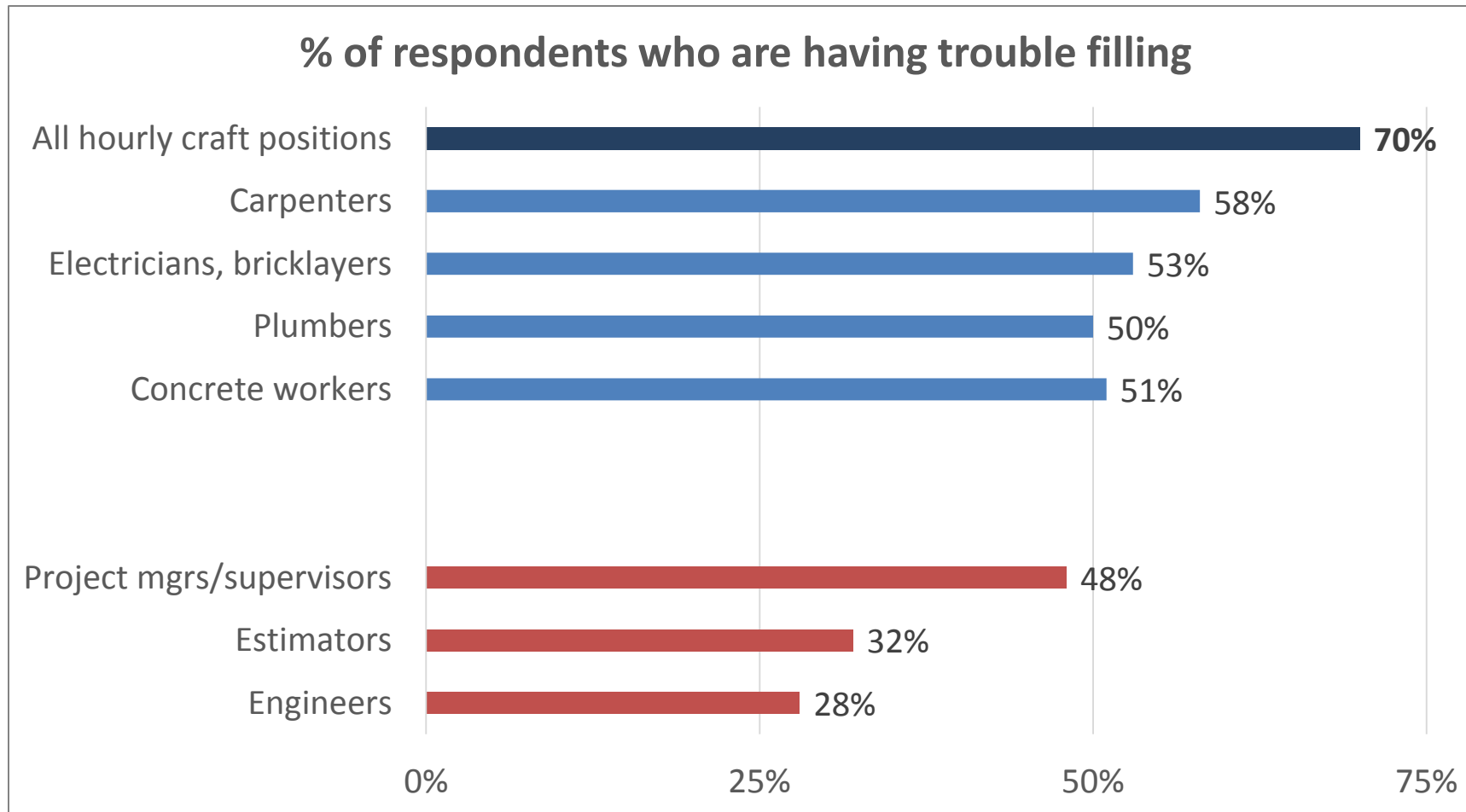
Shading based on unrounded numbers

## Metro construction employment change

7/16 to 7/17: 259 metros **up (72%)**, 41 unchanged, 58 **down (16%)**

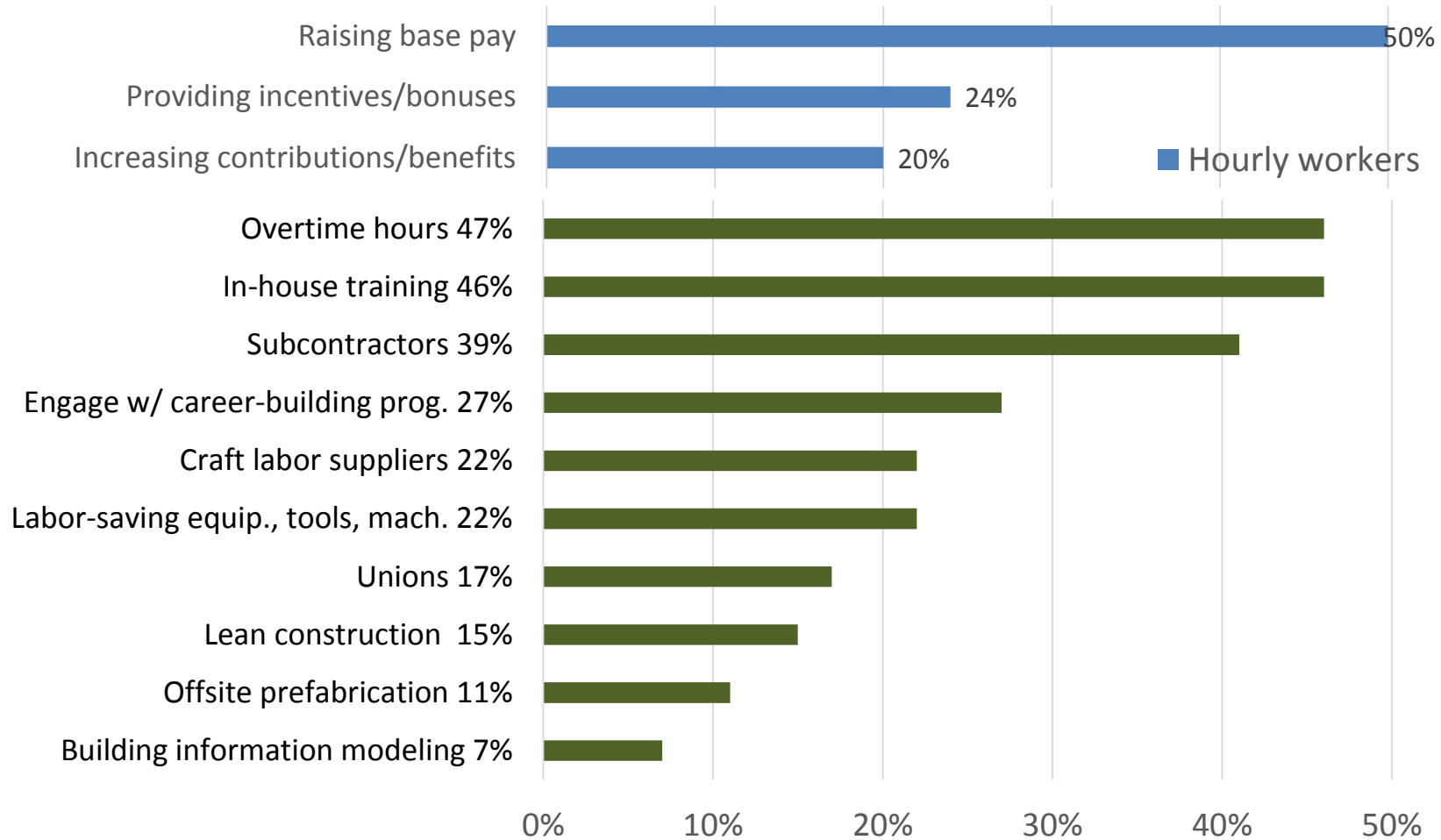


# Hardest positions to fill

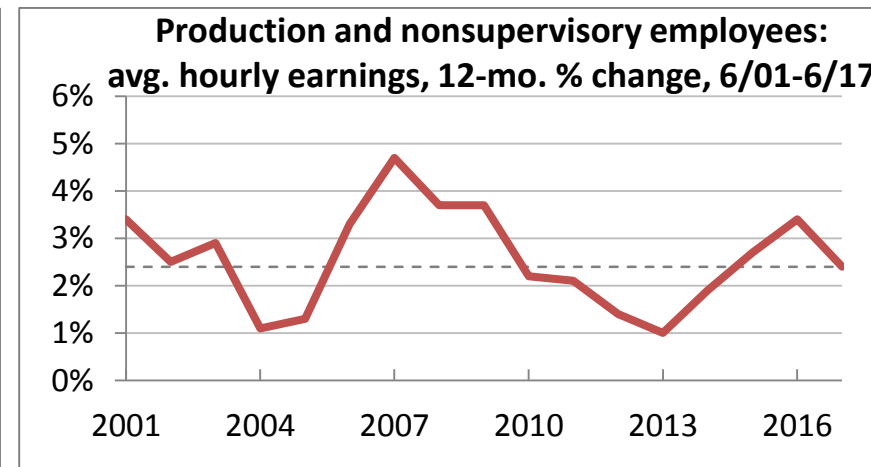
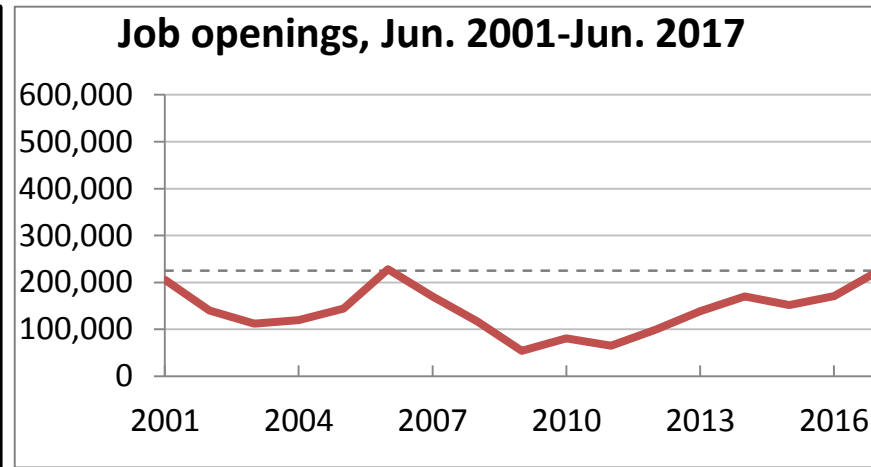
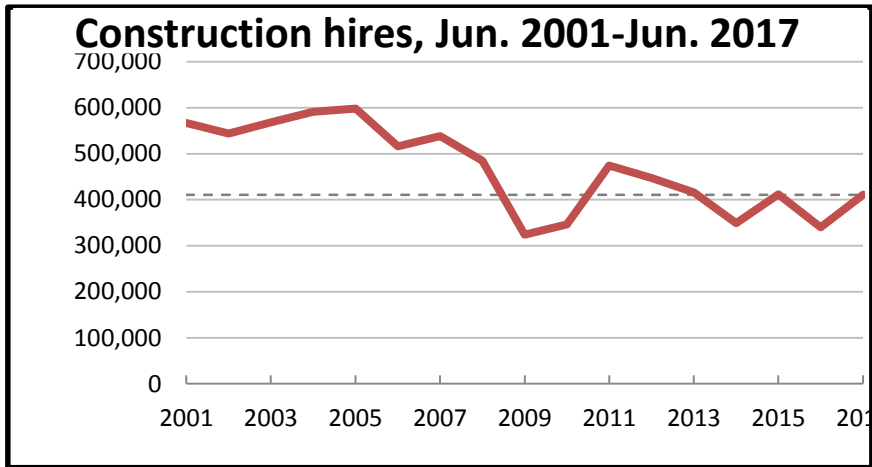


Source: AGC Member Survey, August 2016

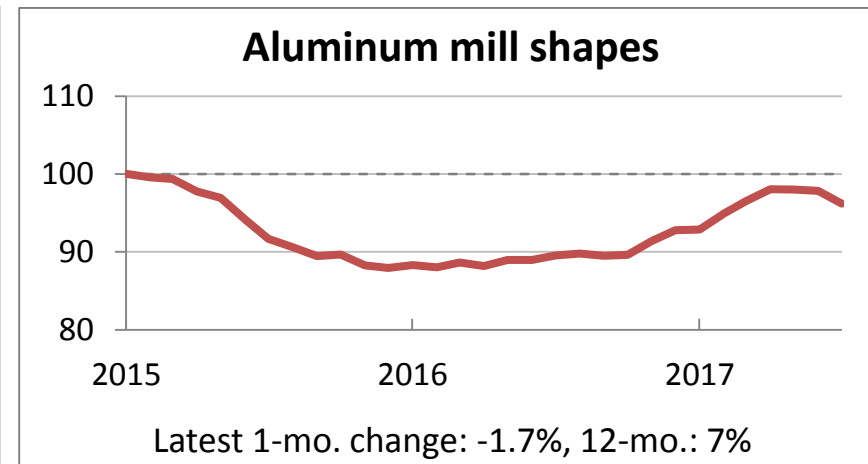
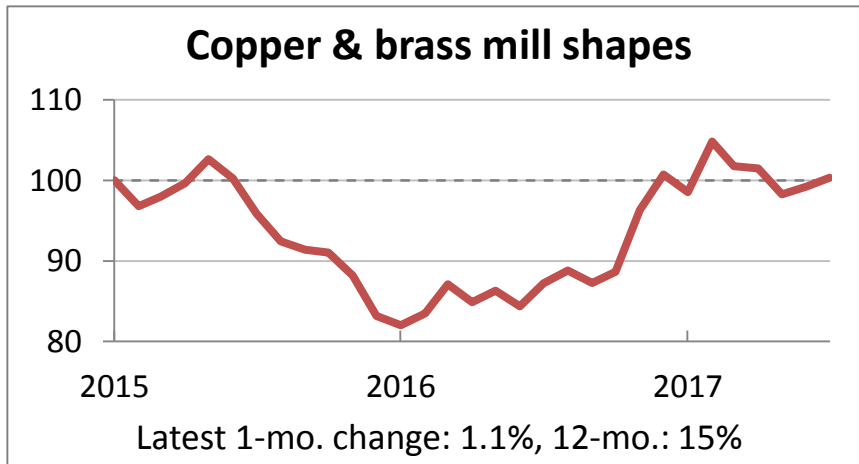
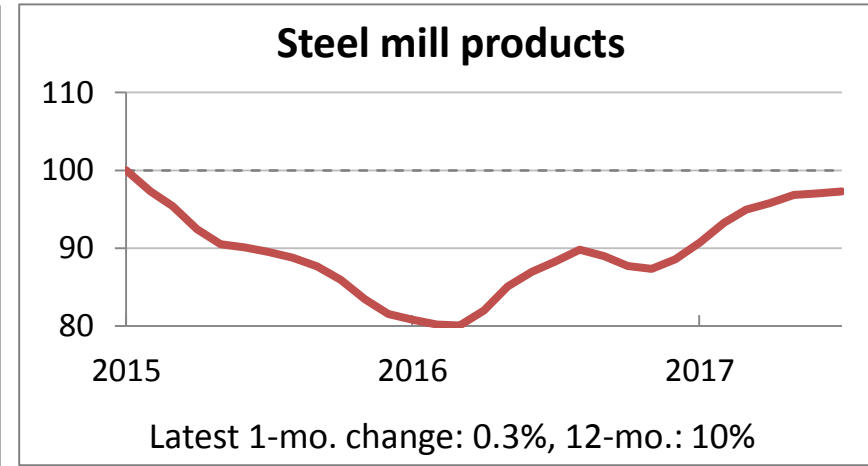
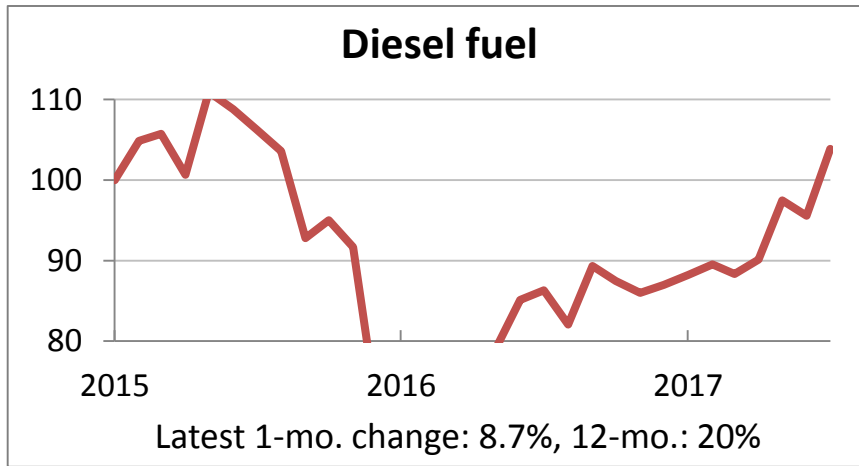
# How contractors are coping with worker shortages



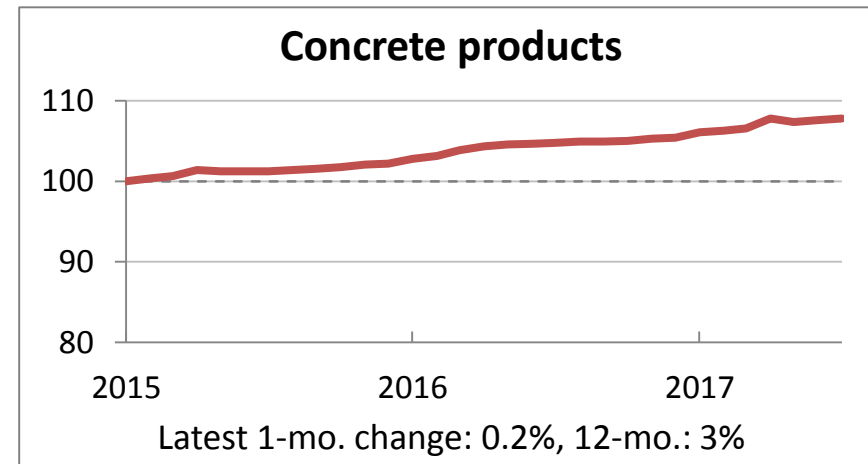
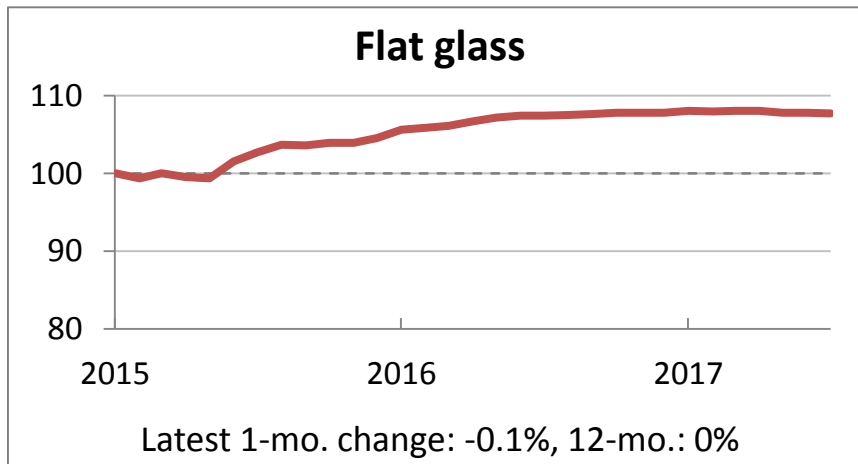
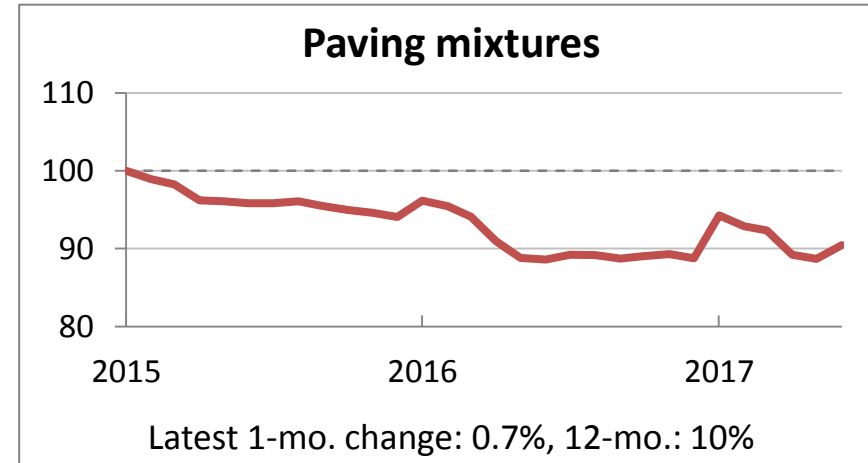
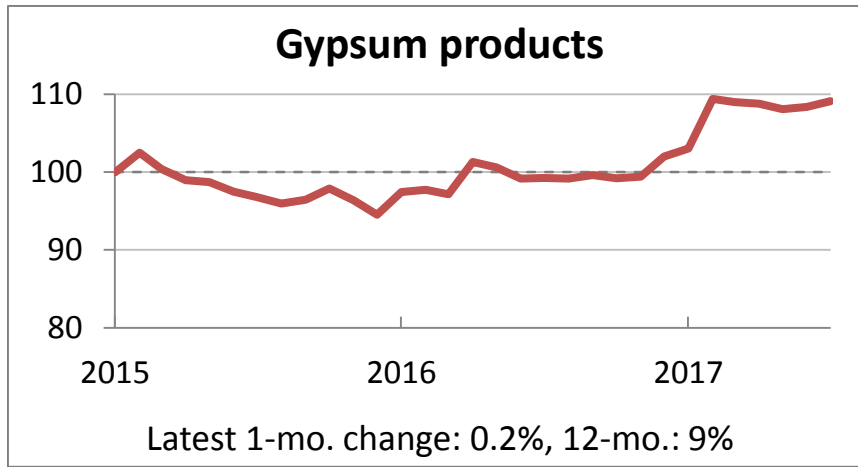
# Construction workforce indicators (not seasonally adjusted)



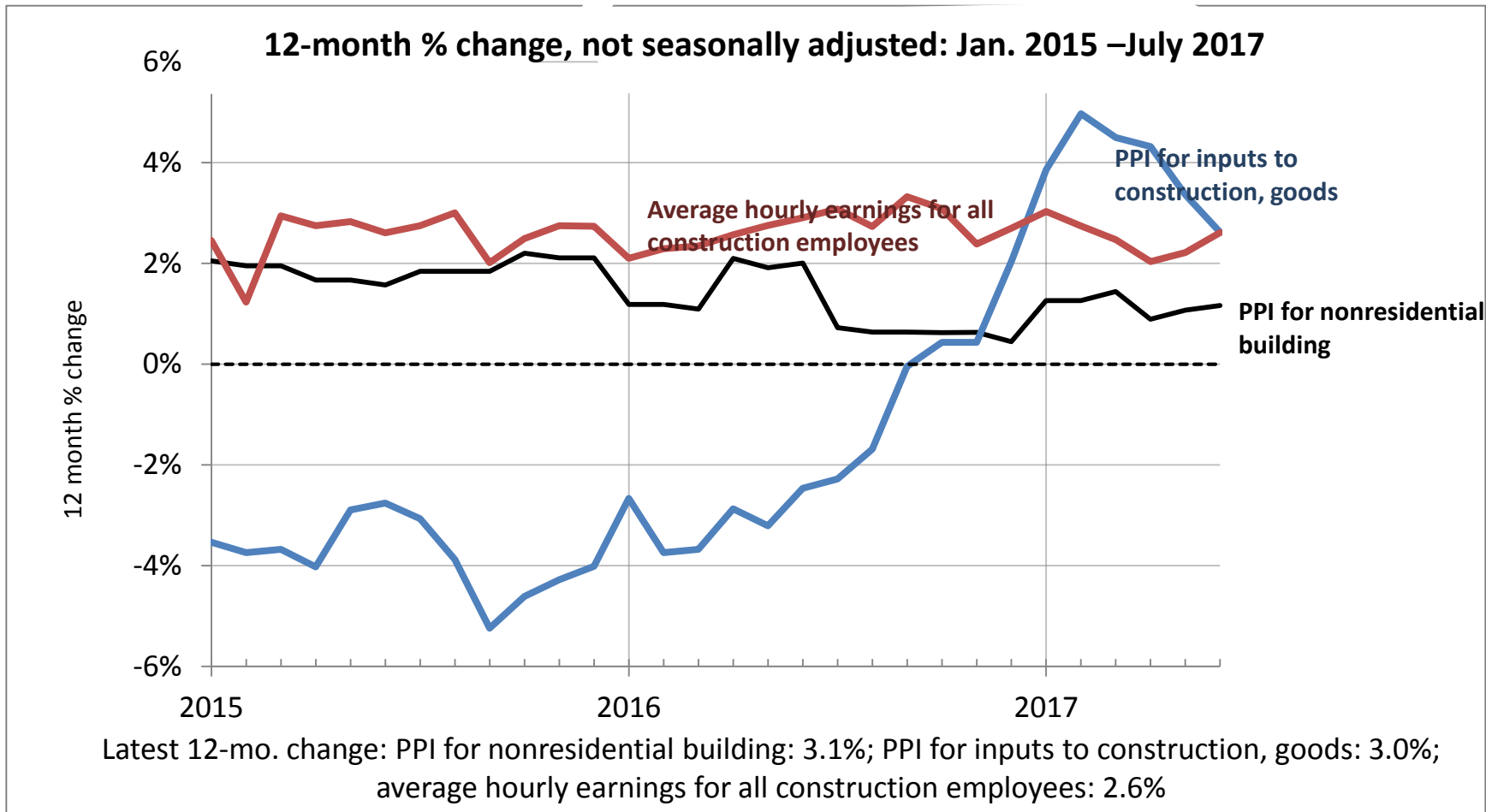
# Producer price indexes for key inputs, 1/15-7/17 (Jan. 2015=100)



# Producer price indexes for key inputs, 1/15-7/17 (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%

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

# 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 data, fact sheets:  
[www.agc.org/learn/construction-data](http://www.agc.org/learn/construction-data)



**Data DIGest**

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Sept. 24-Oct. 2, 2009  
Vol. 9, No. 33

Construction job losses remain heavy, widespread; homebuilding rises, nonres sinks

**Download the one-page Data DIGest**

City-by-City Construction Employment, August 2009 and 2008

Seasonally adjusted nonfarm payroll job losses in September totaled 263,000, barely half the average of the last 12 months, the Bureau of Labor Statistics (BLS) reported on Friday. (Seasonal adjustment takes into account normal monthly variations in weather and numbers of work days.) *But construction, particularly nonresidential, continued to hemorrhage jobs. Construction lost 15% of its September 2008 jobs in the last 12 months, compared to 4% for the entire nonfarm economy. September losses totaled 51,000 in nonresidential building, specialty trade, and heavy and civil engineering construction combined, nearly the monthly average loss of 54,000 over the past 12 months. Residential building and specialty trade contractors shed a combined 13,000 jobs in September, barely a third as many as the monthly average over the 12-month span. One faintly positive sign was that architectural and engineering services employment, a harbinger of future demand for construction, rose for the first time in 15 months, albeit by only 500 jobs (0.04%). Average hourly earnings in construction tumbled 16 cents to \$22.45 in September, bringing the 12-month change to 36 cents or 1.6%, compared to 2.5% for all private-sector production or nonsupervisory employees. The overall unemployment rate climbed to 9.5% in September, not seasonally adjusted (9.8%, seasonally adjusted) from 6.0% a year earlier. The unemployment rate in construction, 17.1%, not seasonally adjusted, again topped every other industry and was up from 9.9% a year earlier.*

For the eighth month in a row, all 372 metro areas had higher unemployment rates in August than a year earlier, BLS reported on Wednesday. (Seasonally adjusted industry and metro unemployment rates are not available.) Of the 369 areas reporting nonfarm payroll employment, 356 had year-to-year losses, 11 had gains and two were unchanged. The largest percentage gains were in Sandusky, Ohio, 2.7%; Hot Springs, Arkansas, 2.6%; Kennewick-Pasco-Richland, Washington, 2.5%; Jonesboro, Ark., 1.9%; and McAllen-Edinburg-Mission, Texas, 1.5%. *If sustained, these gains can lead to more demand for construction. AGC compiled a list of 337 areas, including divisions and subdivisions of the 34 largest metros, for which BLS provided construction employment figures (combined with mining and logging in metros where employment in these industries is small). Construction employment fell over the past 12 months in 324 of these locations, rose in eight and was unchanged in five. The largest 12-month percentage construction employment gains were in Columbus, Indiana, 14% (combined data); Anderson, Ind., 6% (combined); Tulsa (construction only); Longview, Wash. (combined) and Baton Rouge (construction only), 3% each. The worst construction job losses were in Reno-Sparks, Nevada, -35% (construction only); Duluth, Minnesota-Wisconsin, -33% (combined); Tucson, -31% (construction only); Wenatchee-East Wenatchee, Wash., -30% (combined); and Redding, California, -28% (combined).*

Construction in Chicago will not get a boost from the Olympics. The International Olympic Committee today awarded the 2016 Games to Rio.

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