Quality People.
Quality Projects.

Construction Spending, Labor & Materials Outlook

February 21, 2017

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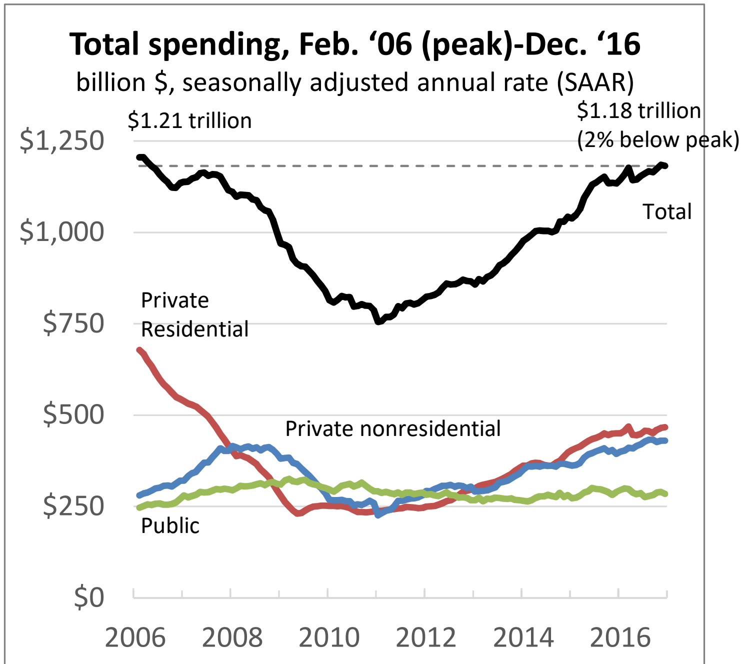
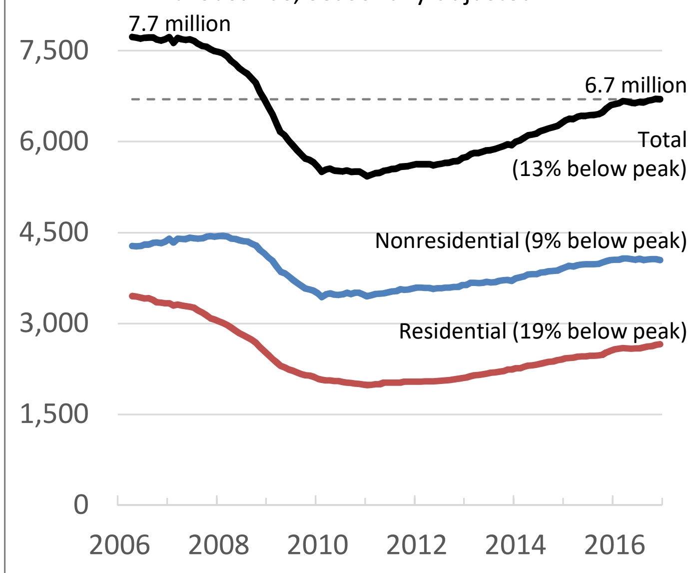
Construction spending & employment, 2006-16



December 2015-December 2016: total 4.2%
private res. 4%, private nonres. 9%, public -2%



December 2015-December 2016: total 1.5%
residential 4%, nonresidential 0%

Policy possibilities & uncertainties affecting construction

- Infrastructure: How much? How soon? What types? Funding source?
- Immigration: Impact on new & current workers? Wall construction?
- Trade: Higher materials costs? Shortages? Less or more factory const.?
- Regulatory relief: Which ones? How soon?
- Fiscal: Lower taxes? For whom? Bigger deficits? Implications for construction demand, labor supply?
- Monetary: Higher interest rates? Implications for construction costs?

Source: Author

AGC members' expectations for 2017 (1281 total responses)

Compared to 2016, do you expect the available dollar volume of projects you compete for in 2017 to be higher/lower/same?

	% higher - % lower
All projects	**36%**
Hospital; Retail, warehouse, lodging	23
Private office	20
Manufacturing	18
Highway; Public building	15
Higher education; K-12 school; Water/sewer	14
Multifamily; Other transportation (e.g., transit, rail, airport)	11
Power	10
Federal (e.g., VA, GSA, USACE, NAVFAC)	7

Nonresidential segments: 2014-16 change, 2017 forecast

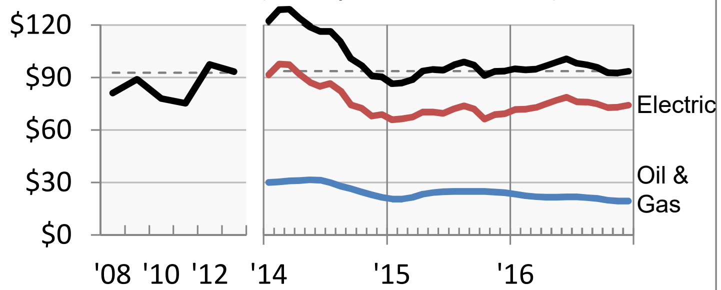
	2015 vs. 2014	2016 vs. 2015	2017 forecast
Nonresidential total (public+private)	**7 %**	**4%**	**2-6%**
Power (incl. oil & gas field structures, pipelines)	-16	3	5-10
Highway and street	6	2	2-5
Educational	5	6	3-7
Manufacturing	33	-4	<0
Commercial (retail, warehouse, farm)	6	11	0-5
Office	18	25	8-13
Transportation	8	-6	0-5
Health care	5	2	0-5
Lodging	30	25	~0
Sewage & waste disposal	5	-9	
Other--amusement; communication; religious; public safety; conservation; water: 6% of total	9	-1	

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

Construction spending: industrial, heavy

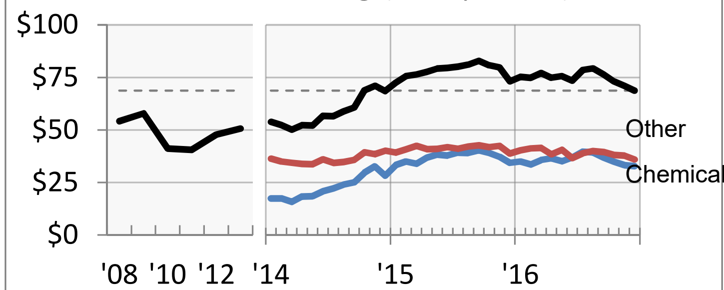
annual total, 2008-13; monthly, SAAR, 1/14-12/16; billion $

Power (91% private in 2016)



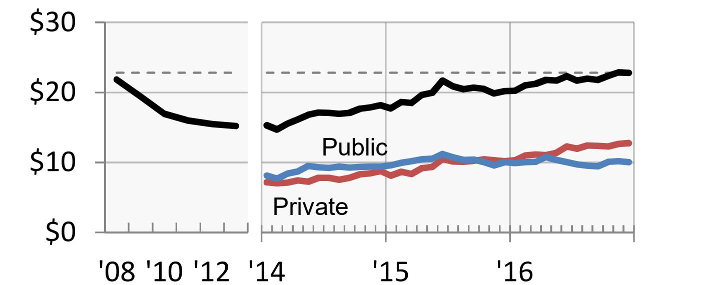
Dec. '15-Dec. '16 change: 0% (oil & gas -20%; electric 7%)

Manufacturing (99% private)



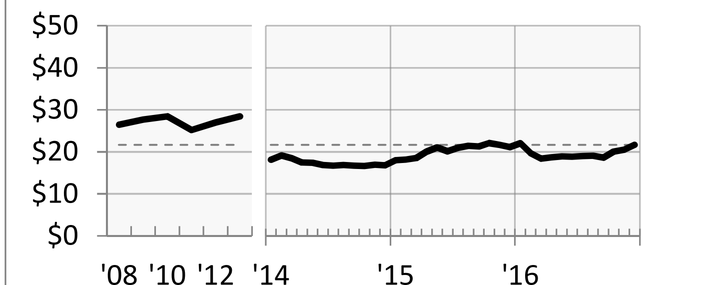
Dec. '15-Dec. '16 change: -6% (chemical -5%; other -7%)

Amusement & recreation (54% private)



Dec. '15-Dec. '16 change: 13% (private 25%; public 0%)

Communication (99% private)



Dec. '15-Dec. '16 change:3%

Source: U.S. Census Bureau construction spending report

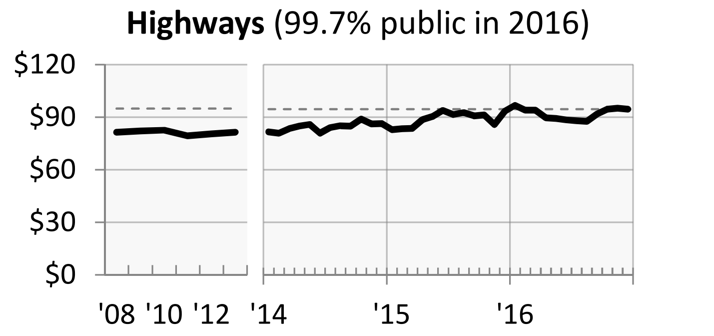
Key points: power, manufacturing, recreation

- Solar, wind power are growing again; expect more gas-fired plants, natural gas pipelines into ‘18
- Mfg decline led by completion or delay of chemical plants (fertilizer, ethane crackers, petrochemicals, LNG) and transportation equipment (cars, trucks, jets, railcars)
- Amusement & recreation spending is very “lumpy”—a few big stadiums at irregular intervals; but funding for local, state, federal parks keeps eroding

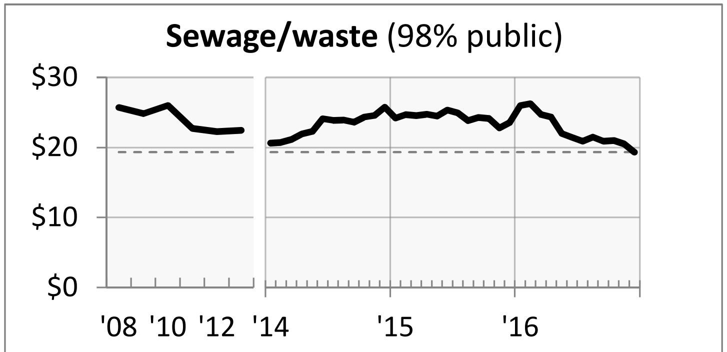
Source: Author

Construction spending: public works

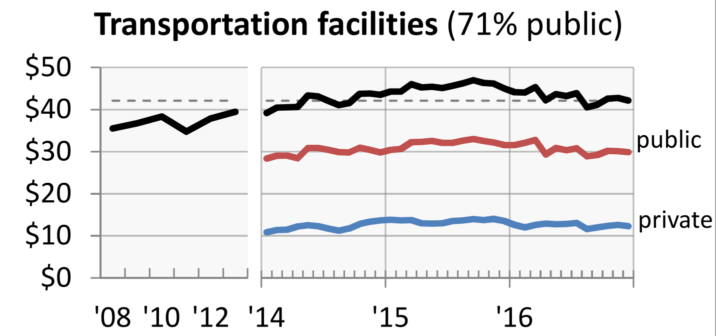
annual total, 2008-13; monthly, SAAR, 1/14-12/16; billion $



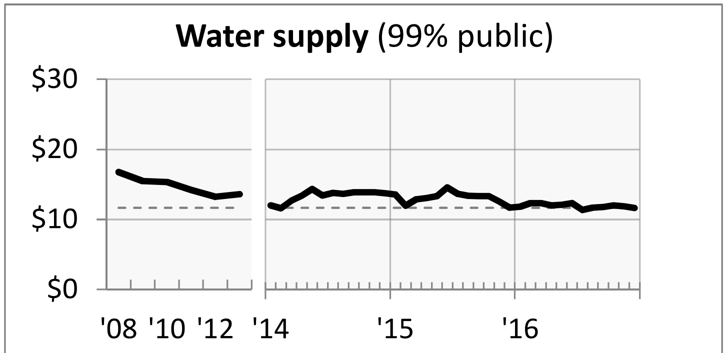
Dec. '15-Dec. '16 change: 1%



Dec. '15-Dec. '16 change: -18%



Dec. '15-Dec. '16 change: -6% (private -9%; public -5%)



Dec. '15-Dec. '16 change: 0%

Source: U.S. Census Bureau construction spending report

Key points: roads, transportation, sewer/water

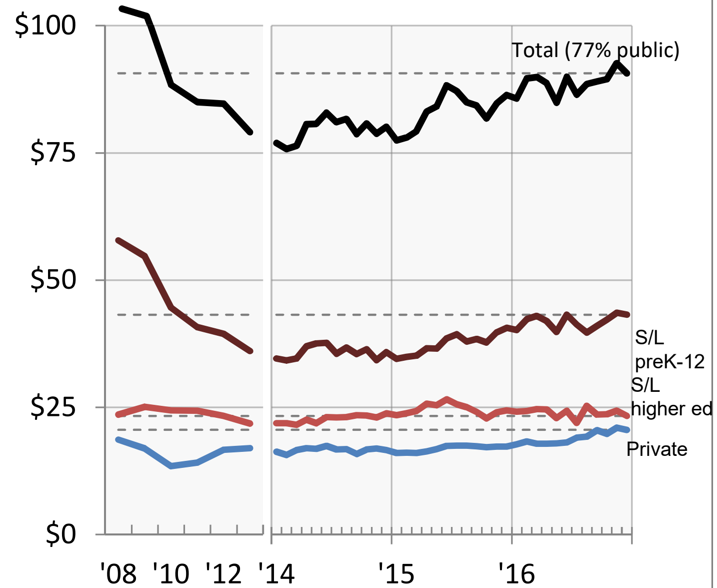
- Highway funds benefit from more travel, hence fuel purchases; gradual pick-up in state funding & P3s; higher federal funding unlikely before '18
- Railroads slashing investment; pickup in airport projects but no increase likely in port, transit construction funding
- Eastern & Midwestern cities under orders to make long-term upgrades to sewer systems that should boost spending; water utilities hurt by drought, conservation but may get money for lead abatement

Source: Author

Construction spending: education, health care

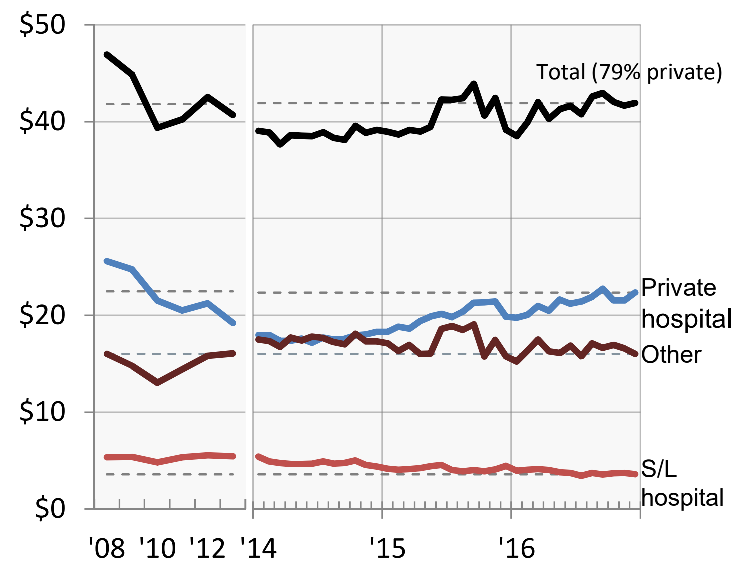
annual total, 2008-13; monthly, SAAR, 1/14-12/16; billion $

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



Dec. '15-Dec. '16 change: 5% (state/local preK-12 6%; state/local higher ed -5%; private 19%)

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



Dec. '15-Dec. '16 change: 7% (private hospital 13%; S/L hospital -19%; other: special care, med. office, federal 8%)

Key points: education & health care

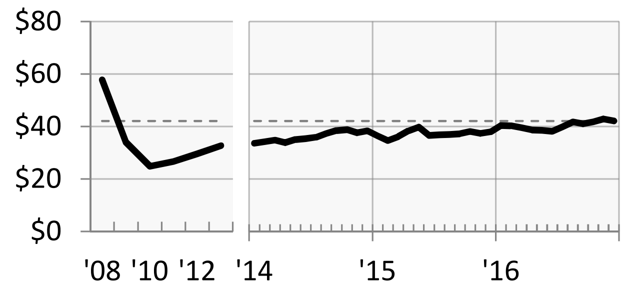
- Bond issues passed in 2014-16 should boost preK-12 projects in 2017
- Higher-ed enrollment declined 21% from 2011 to 2016, so colleges need fewer dorms & classrooms; apts. (multifamily) replacing dorms (educational construction)
- Hospitals face more competition from standalone urgent care, outpatient surgery, clinics in stores; also, renewed uncertainty about utilization and reimbursement rates if Affordable Care Act is repealed/modified/replaced

Source: Author

Construction spending: developer-financed

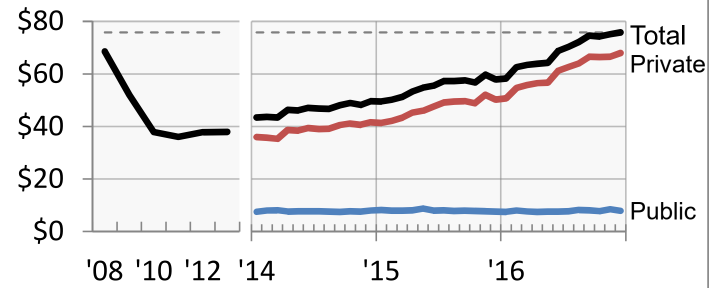
annual total, 2008-13; monthly, SAAR, 1/14-12/16; billion $

Retail (private)



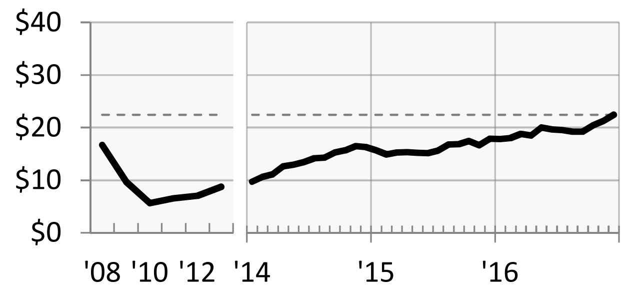
Dec. '15-Dec. '16 change: 11%

Office (89% private in 2016)



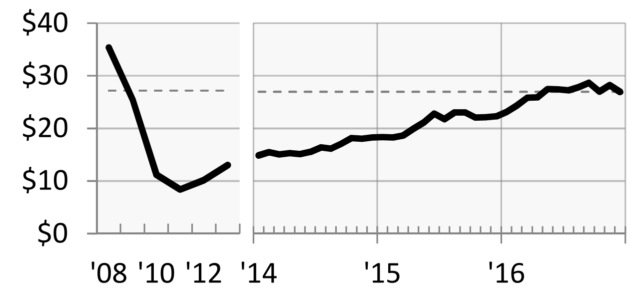
Dec. '15-Dec. '16 change: 31% (private 35%; public 3%)

Warehouse (private)



Dec. '15-Dec. '16 change: 25%

Lodging (private)

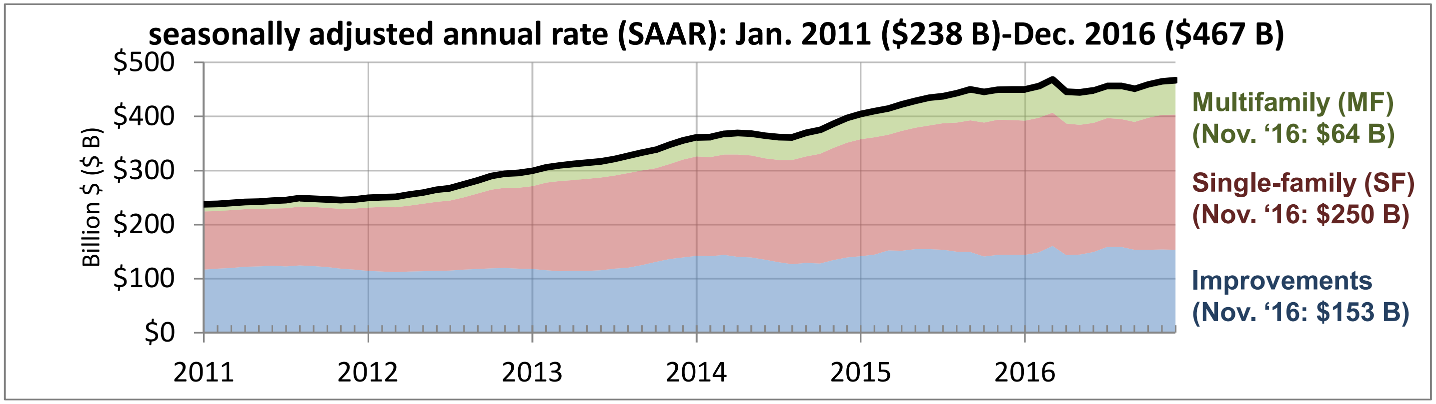


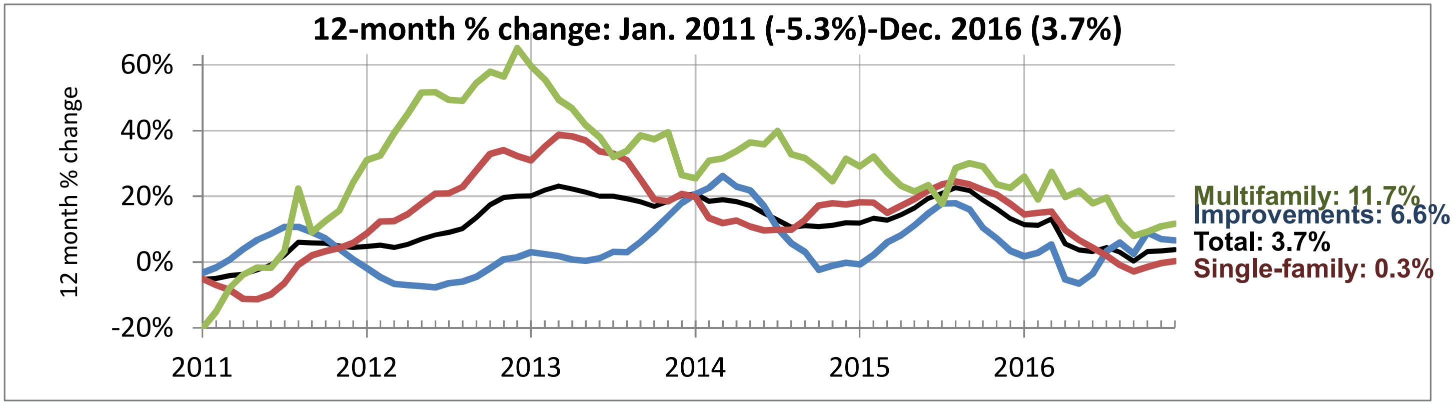
Dec. '15-Dec. '16 change: 21%

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

- Retail now tied to mixed-use buildings & renovations, not standalone stores or shopping centers
- Warehouse market still benefiting from e-commerce; more local than huge regional distribution centers likely in future
- Record employment each month but office space per employee keeps shrinking; more urban & renovation work than suburban office parks
- Hotel construction likely to drop as revenue per available room slows
- Data centers remain a strong niche but no data available on how strong

Private residential spending: MF continues to outpace SF



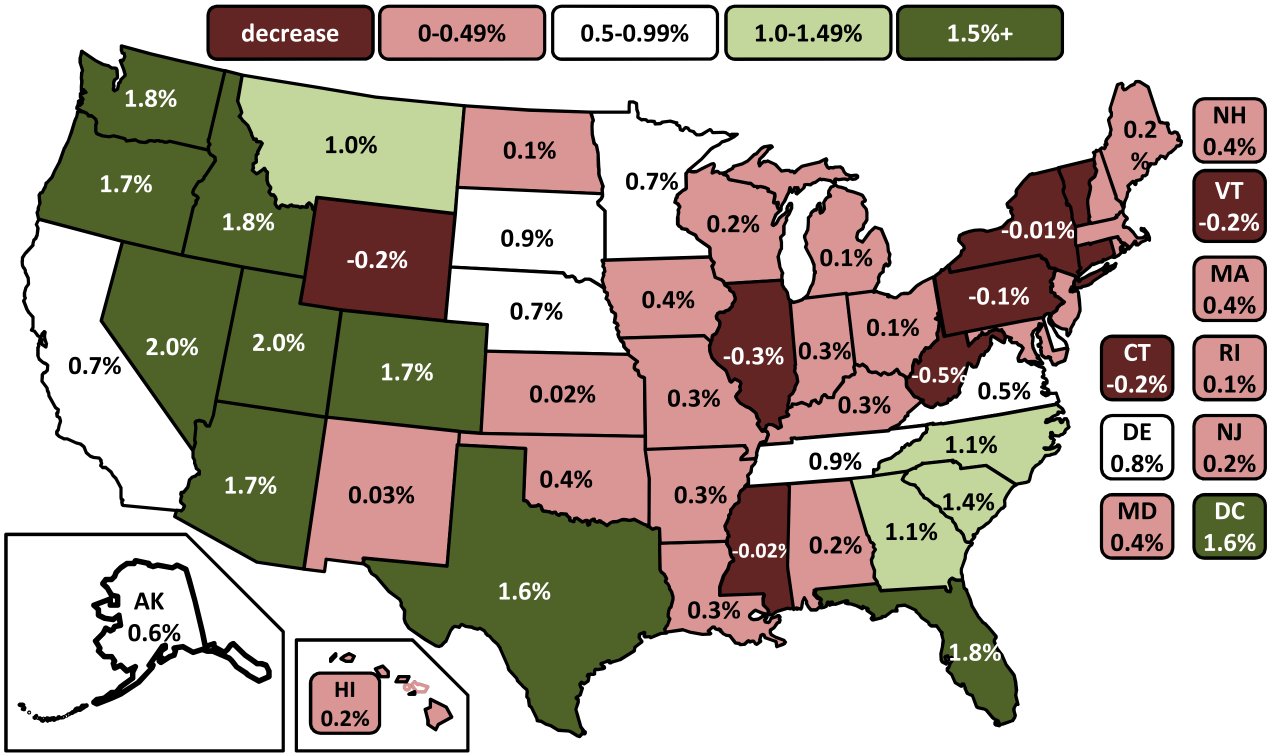


Private residential spending
2016: 5%; 2017 forecast: 5-10%

- SF: 4% in 2016, **6-11% in 2017**; ongoing job gains add to demand; but student debt and other credit impairments, limited supply will limit growth
- MF: 16% in 2016, **5-10% in 2017**; growth slowing but should last till 2018
  - occupancy rates, rents have leveled off or dipped in some markets
  - 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
- Improvements: 3% in 2016, **0-10% in 2017**; Census data is not reliable and shows only a loose relationship to SF spending

Source: Author

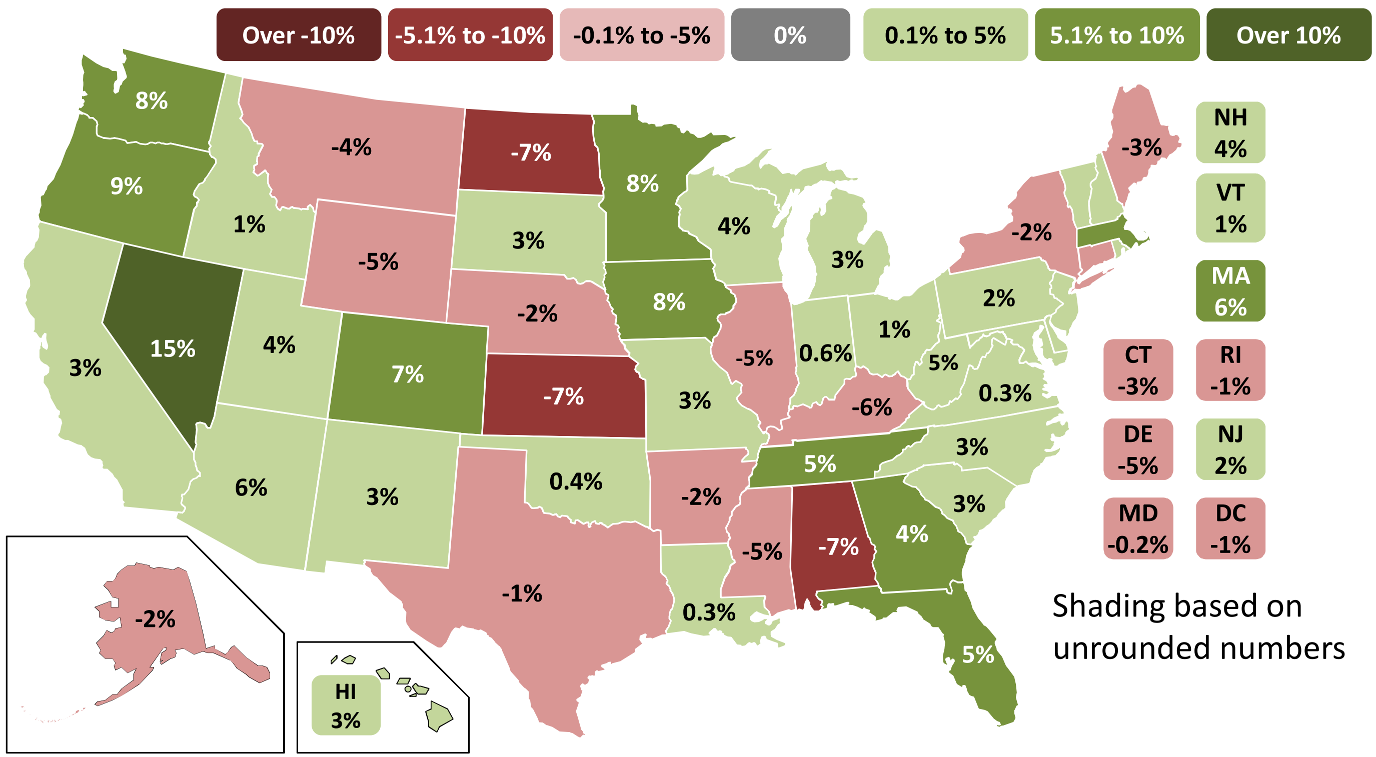
Population change by state, July 2015-July 2016 (U.S.: 0.70%)



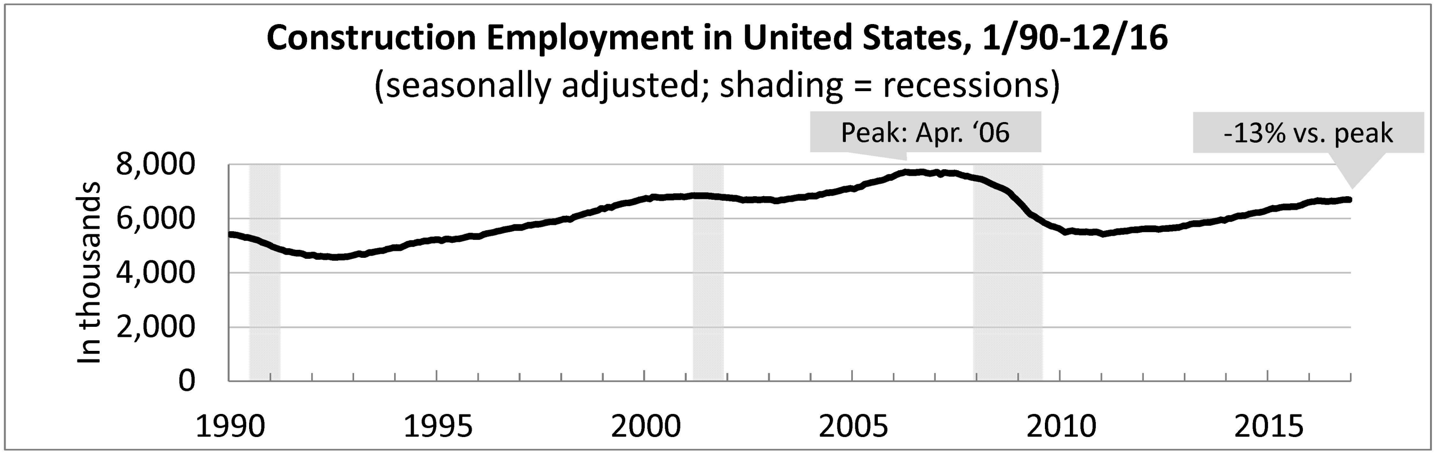
Source: U.S. Census Bureau

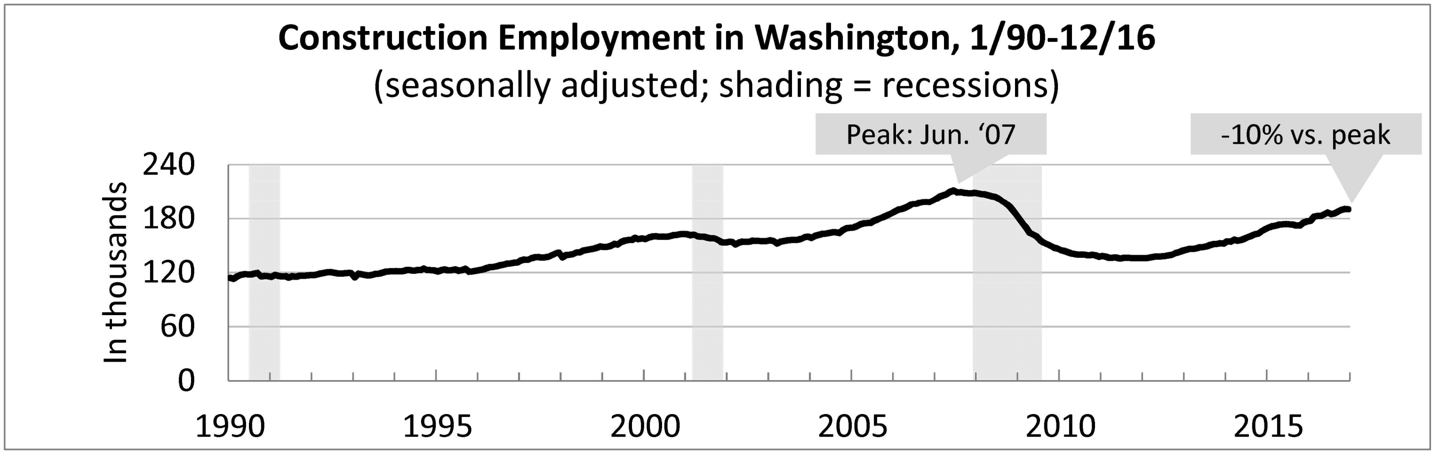
State construction employment change (U.S.: 1.5%)

12/15 to 12/16: **32** states up, **18 + DC** down



Shading based on unrounded numbers

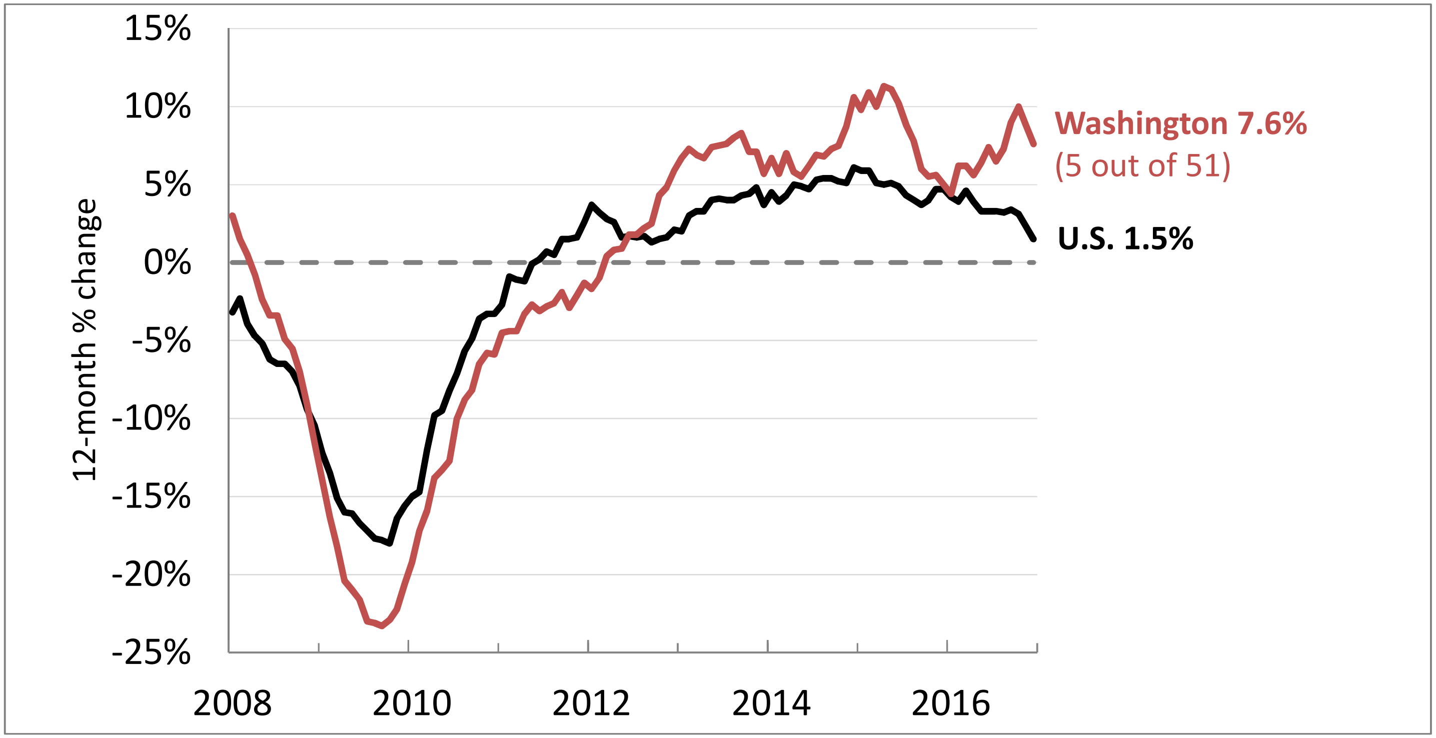

Construction Employment in United States, 1/90-12/16
(seasonally adjusted; shading = recessions)
Peak: Apr. '06
-13% vs. peak
In thousands
8,000
6,000
4,000
2,000
0
1990
1995
2000
2005
2010
2015


Construction Employment in Washington, 1/90-12/16
(seasonally adjusted; shading = recessions)
Peak: Jun. '07
-10% vs. peak
In thousands
240
180
120
60
0
1990
1995
2000
2005
2010
2015

Source: BLS

Construction Employment Change from Year Ago

1/08-12/16 (not seasonally adjusted)



Source: BLS

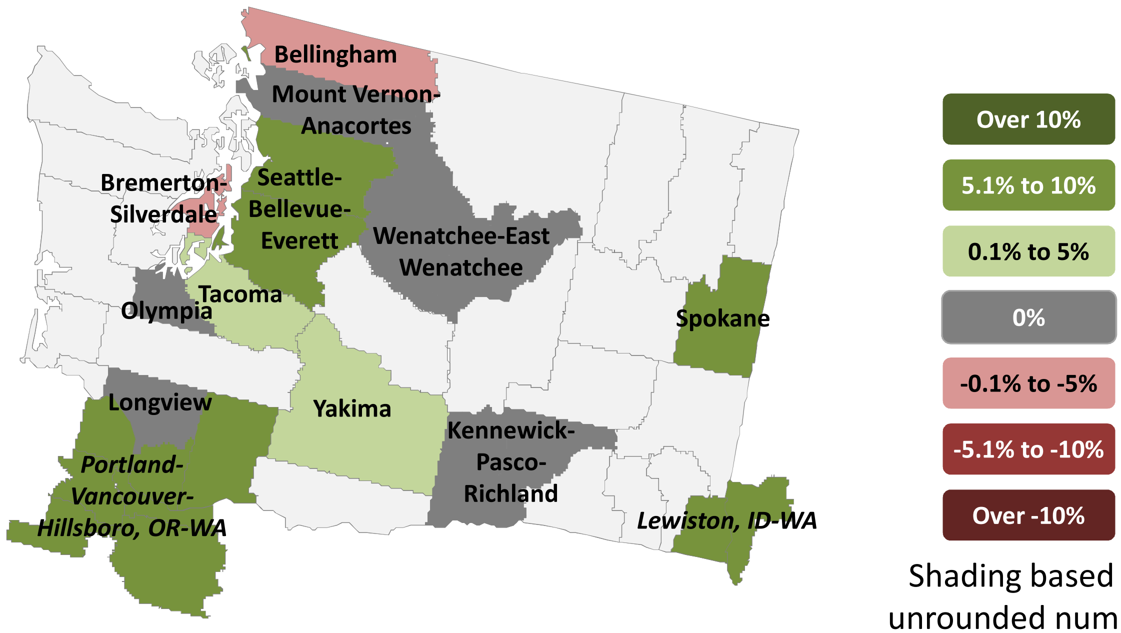
Change in construction employment, 12/15-12/16

Metro area or division	12-mo. empl. change (NSA)	Rank (out of 339)
Statewide (Construction only)	8%	
Statewide* (Const/mining/logging)	7%	
Bellingham*	-5%	314
Bremerton-Silverdale*	-2%	267
Kennewick-Pasco-Richland*	0%	184
Longview*	0%	184
Mount Vernon-Anacortes*	0%	184
Olympia*	8%	26
Seattle-Bellevue-Everett, Div.	7%	33
Spokane*	6%	42
Tacoma, Div.	4%	70
Walla Walla*	0%	184
Wenatchee-East Wenatchee*	0%	184
Yakima*	3%	95
Lewiston, ID-WA	*9%*	*20*
Portland-Vancouver-Hillsboro, OR-WA	*12%*	*8*

**The Bureau of Labor Statistics reports employment for construction, mining and logging combined for metro areas in which mining and logging have few employers. To allow comparisons between states and their metros, the table shows combined employment change for these metros. Not seasonally adjusted statewide data is shown for both construction-only and combined employment change.*

Source: AGC rankings, calculated from BLS state and area employment reports

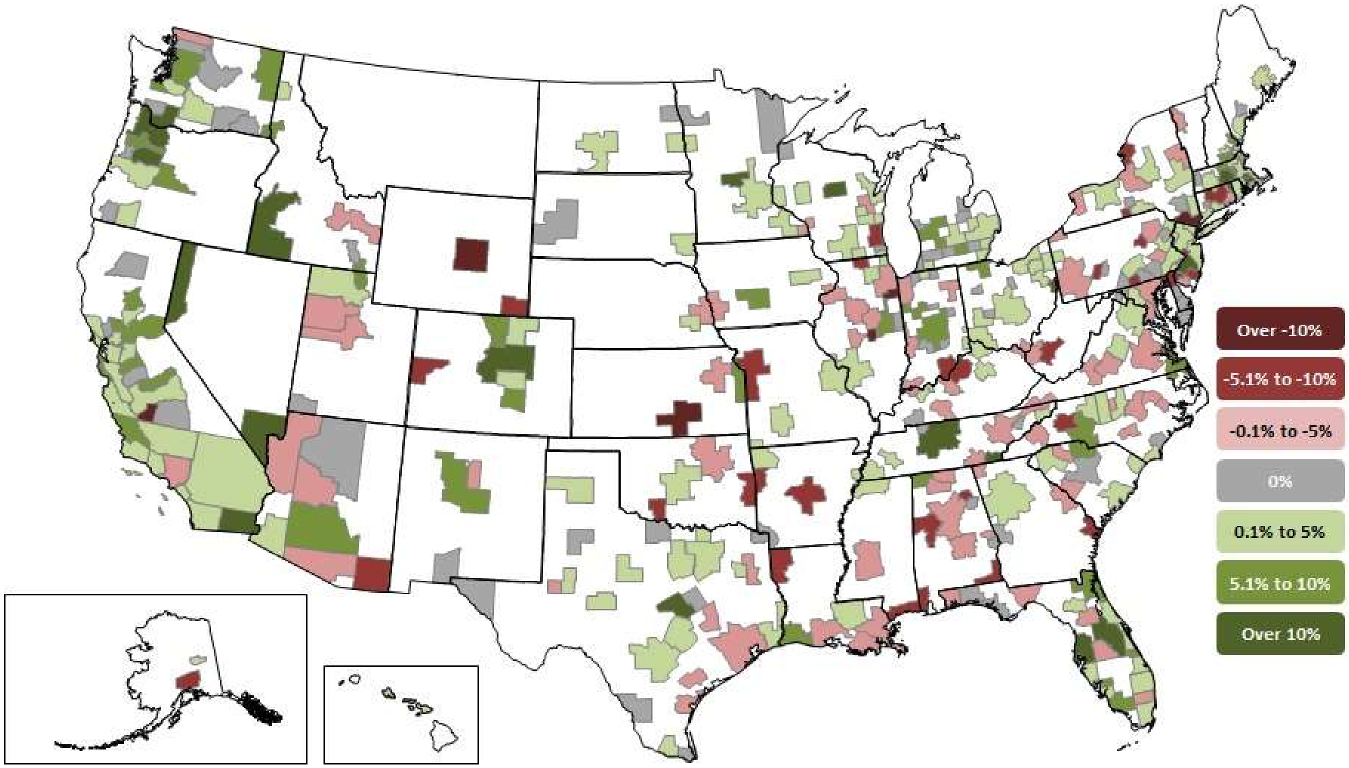
Construction employment change by WA metro, 12/15-12/16



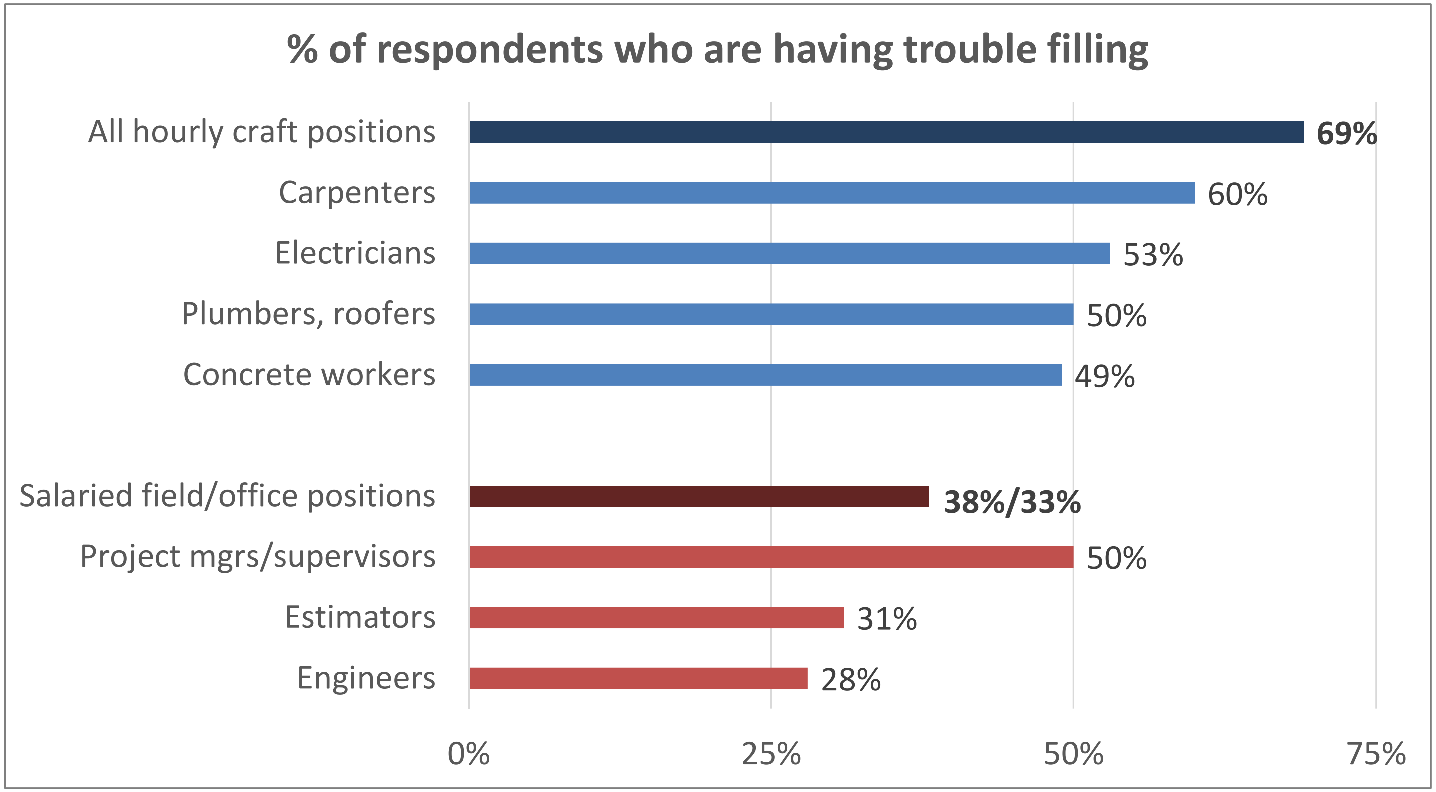
Shading based on unrounded numbers

Metro construction employment change

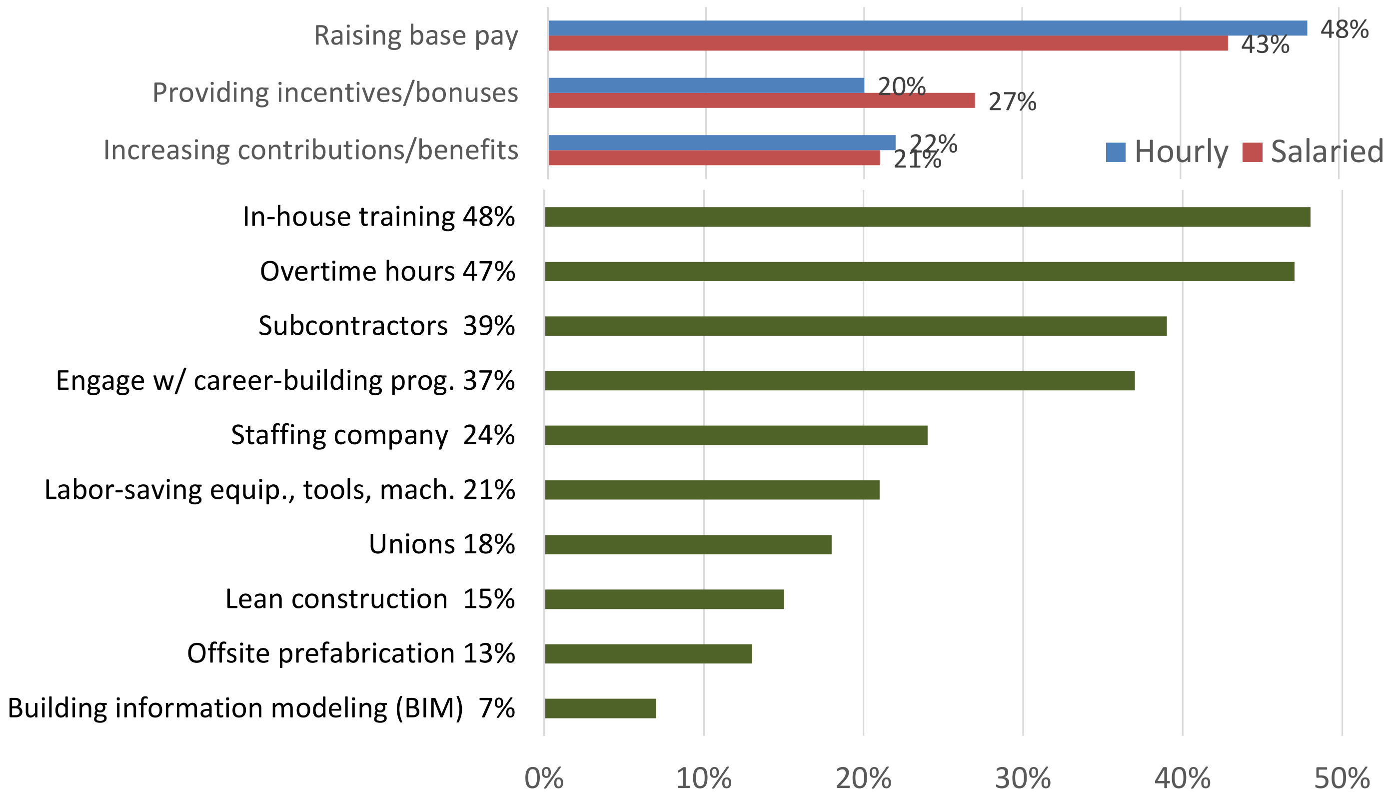
12/15 to 12/16: 183 metros up (51%), 65 unchanged, 109 + DC down (31%)



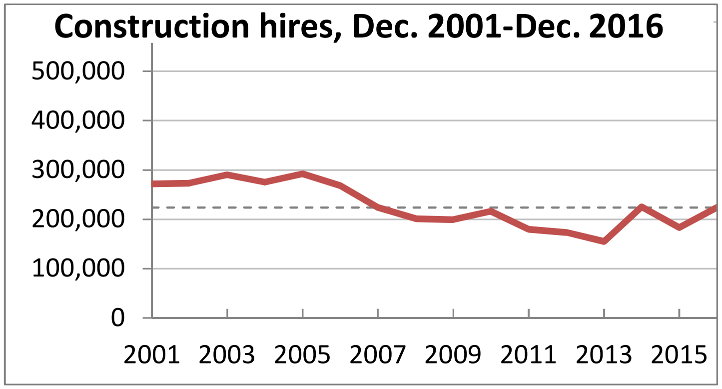
Hardest positions to fill

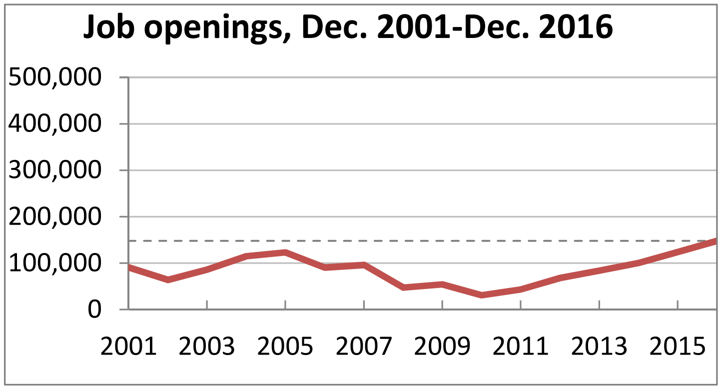


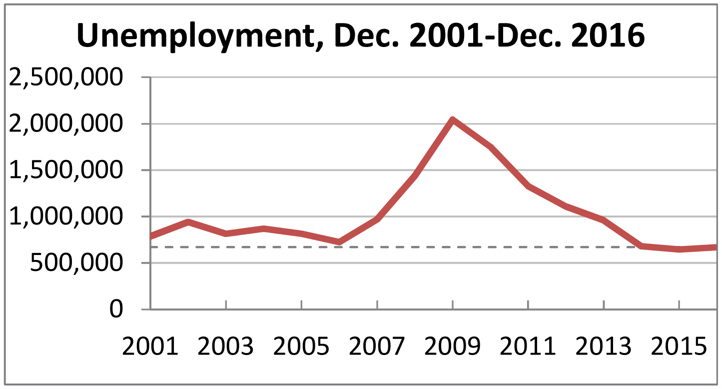
How contractors are coping with worker shortages



Construction workforce indicators (not seasonally adjusted)

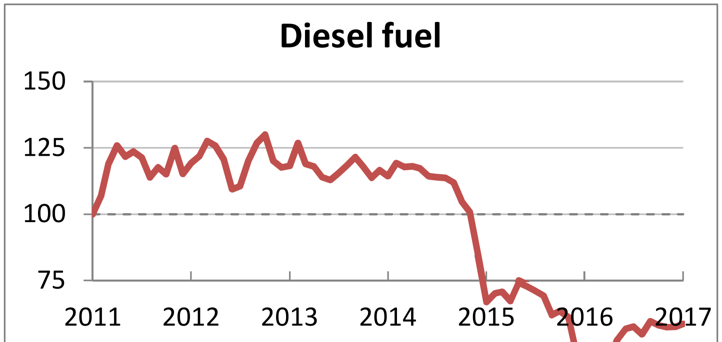




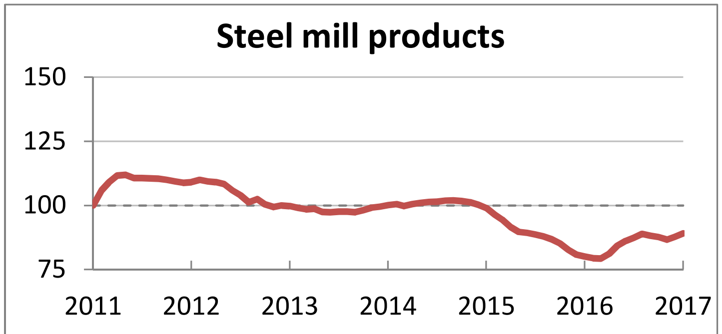


Source: Bureau of Labor Statistics

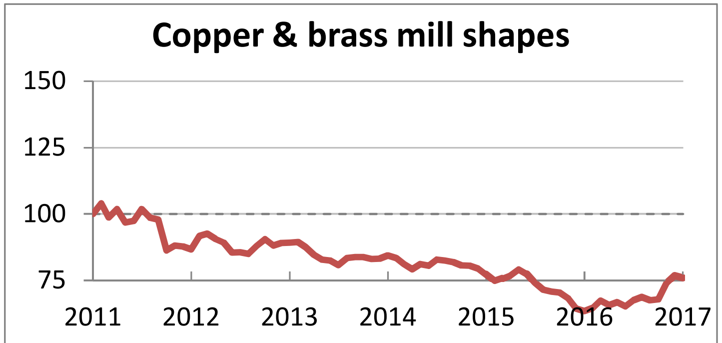
Producer price indexes for key inputs, 1/11-1/17 (Jan. 2011=100)



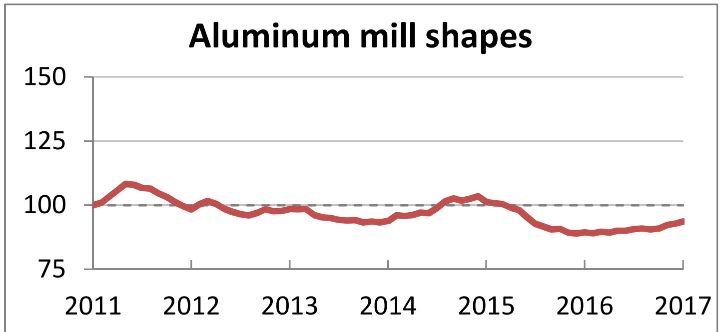
Latest 1-mo. change: 2.2%, 12-mo.: 35%



Latest 1-mo. change: 1.6%, 12-mo.: 11%



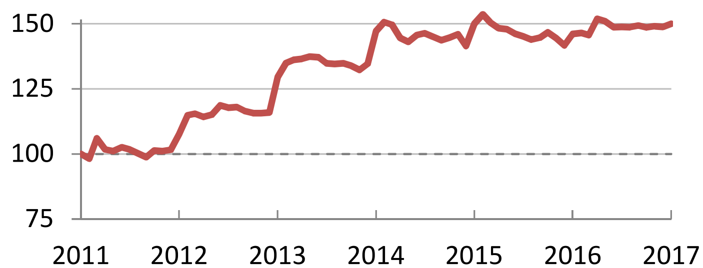
Latest 1-mo. change: -1.1%, 12-mo.: 20%



Latest 1-mo. change: 0.9%, 12-mo.: 5%

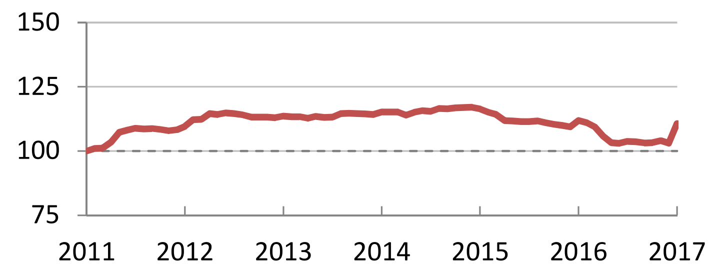
Producer price indexes for key inputs, 1/11-1/17 (Jan. 2011=100)

Gypsum products



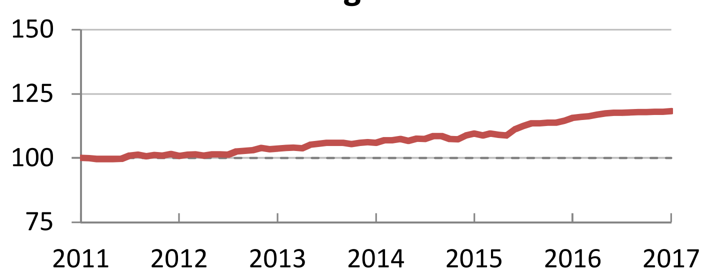
Latest 1-mo. change: 0.8%, 12-mo.: 3%

Paving mixtures



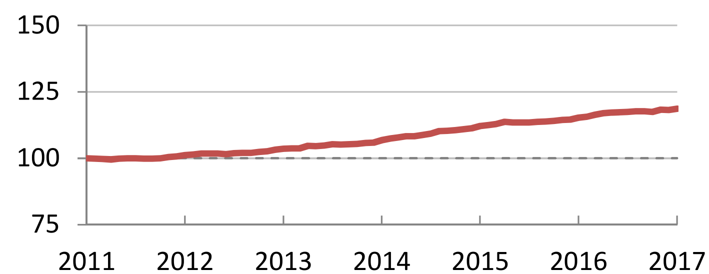
Latest 1-mo. change: 7.5%, 12-mo.: -1%

Flat glass



Latest 1-mo. change: 0.2%, 12-mo.: 2%

Concrete products



Latest 1-mo. change: 0.4%, 12-mo.: 3%

2015-16 summary, 2017 forecast

	2015 actual	2016 actual	2017 forecast
Total spending	11%	4%	2-7%
Private – residential	17%	5%	5-10%
– nonresidential	8%	8%	2-7%
Public	5%	-1%	0-3%
Goods & serv. inputs PPI	-2%	2%	2-4%
Employment cost index	2.2%	2.2%	3-4%

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; PPI; national, state, metro employment
- yearly employment & outlook surveys, state and metro data, fact sheets: 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

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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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