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Construction Spending, Labor & Materials Outlook

September 25, 2015

Ken Simonson

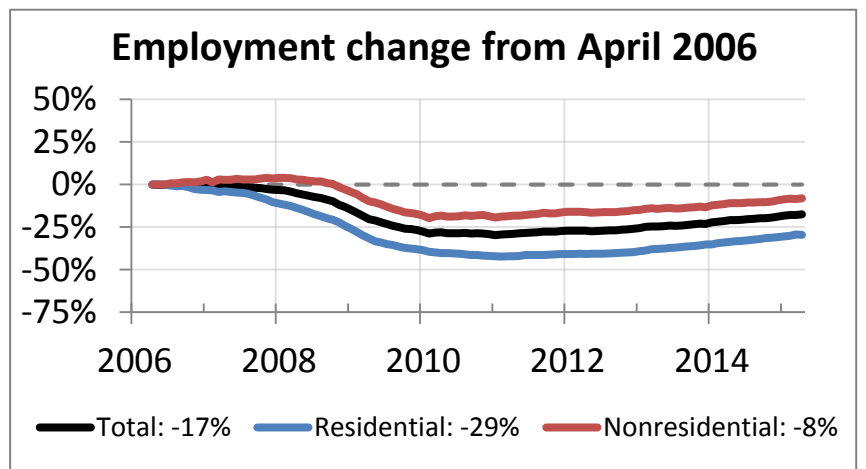
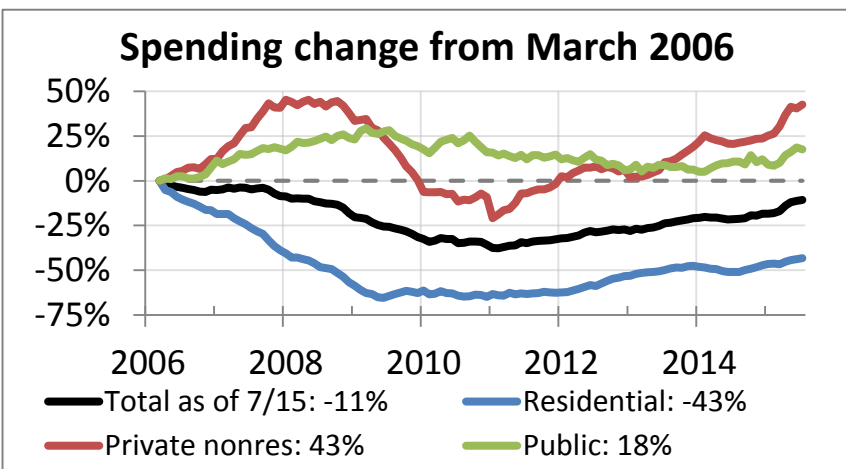
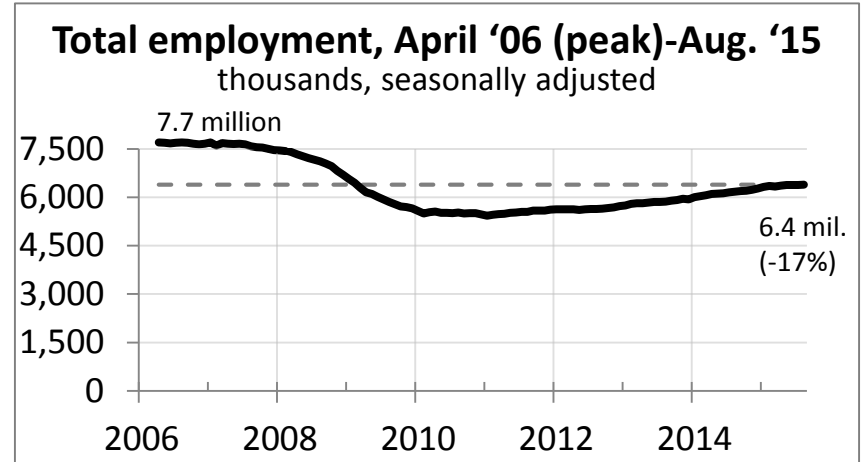
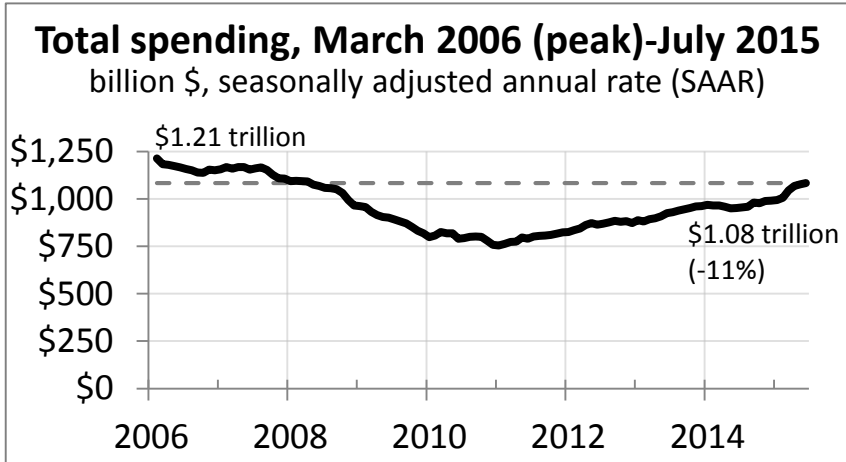
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Construction spending & employment, 2006-15



Construction is growing, but unevenly

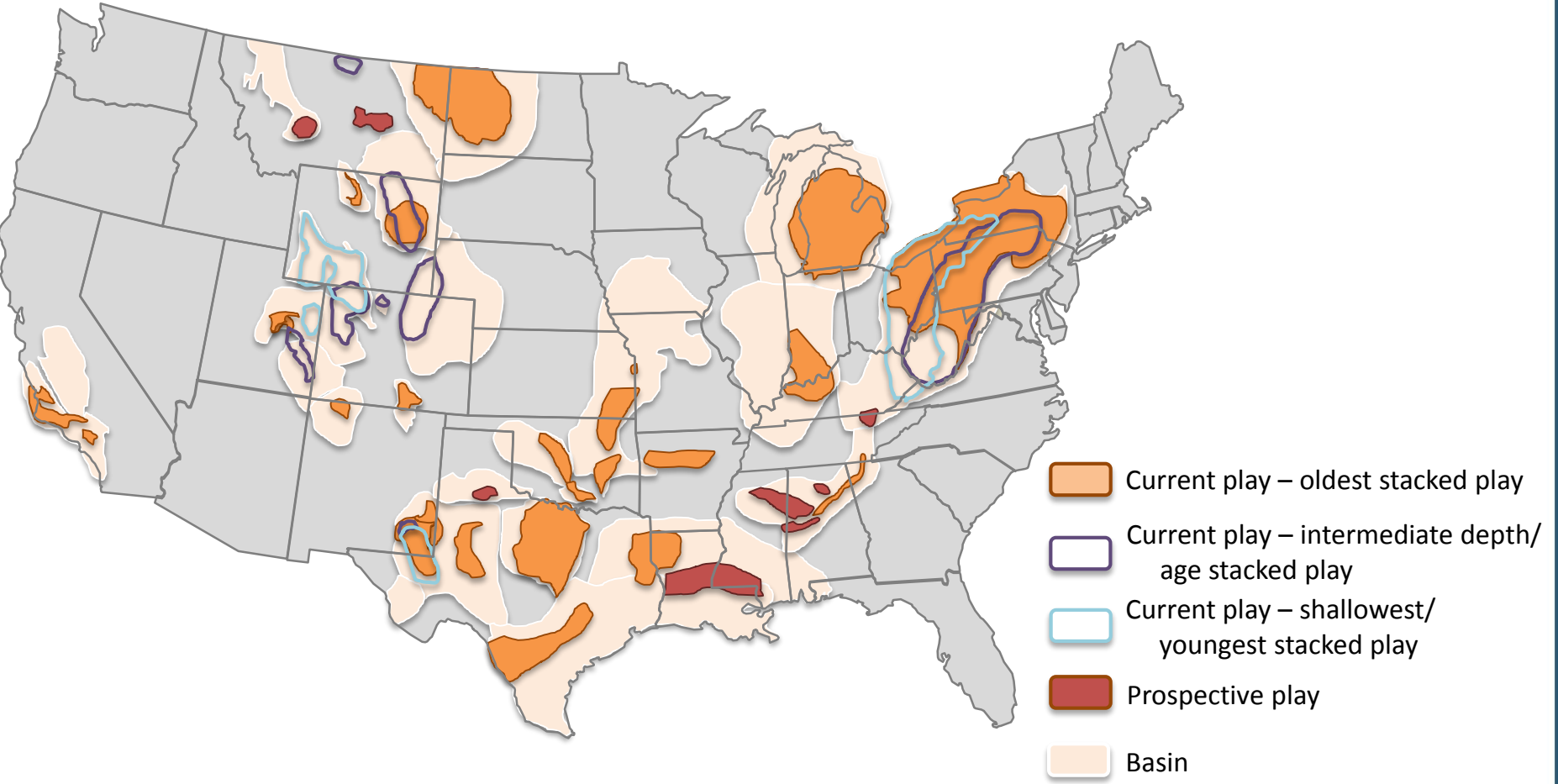
3 trends helping many sectors and regions:

- ‘Shale gale’—mainly downstream after oil price plunge
- Panama Canal expansion
- Residential revival, especially multifamily

3 trends holding down construction growth:

- Government spends less on schools, infrastructure
- Consumers switch from stores to online buying
- Employers shrink office space per employee

Shale plays in lower-48 states



Shale's direct and indirect impacts on construction

- **Onsite:** Each well requires access road, site prep, pad, storage pond, support structures, pipes
- **Nearby:** Products, water require trucking, rail, pipeline, processing
- **Local spending** by drilling firms, workers, royalty holders
- **Upstream:** orders for fracking sand, rigs, compressors, pumps, pipe, tanks, trucks, railcars, processing facilities
- **Downstream:** Petrochemical, power, steel plants; LNG export terminals, fueling stations; NG-powered vehicles
- **Losers:** coal; maybe wind, solar, nuclear & their suppliers

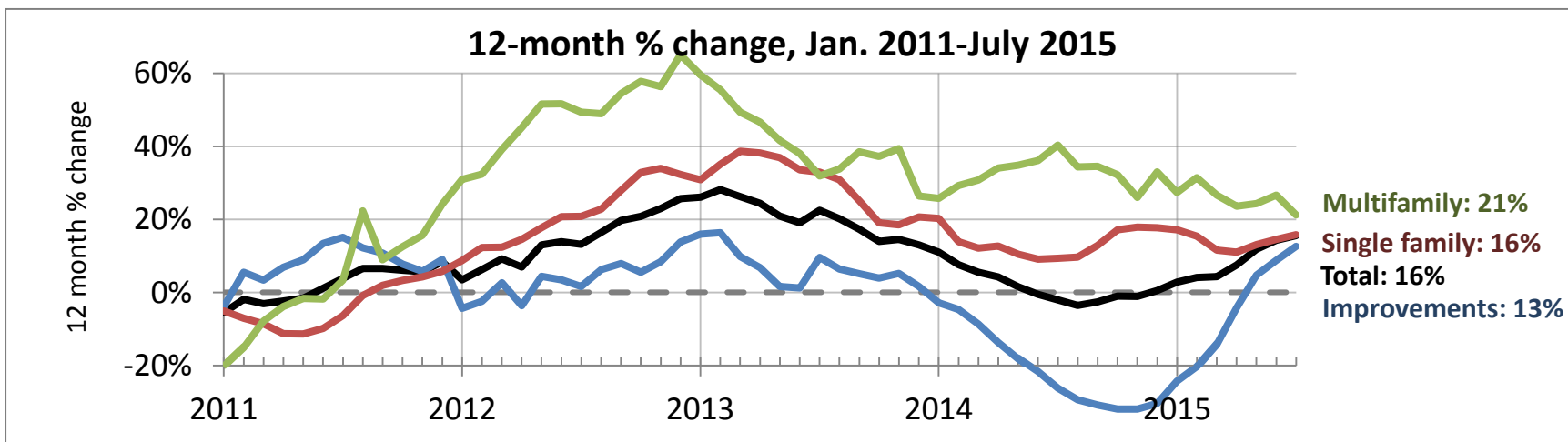
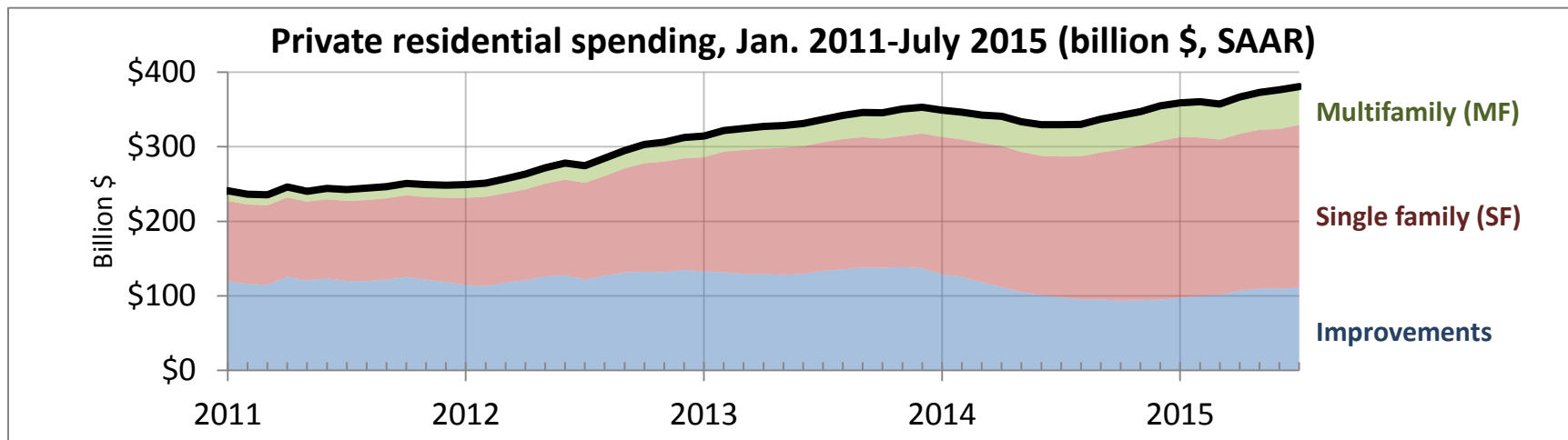
U.S. ports affected by Panama Canal expansion



Panama Canal expansion's impacts on construction

- **Ports:** investing in dredging, piers, cranes, land access
- **Nearby:** Storage, warehouse, trucking, rail facilities
- **Bridge, tunnel, highway** improvements
- **Inland:** possible changes in distribution, manufacturing

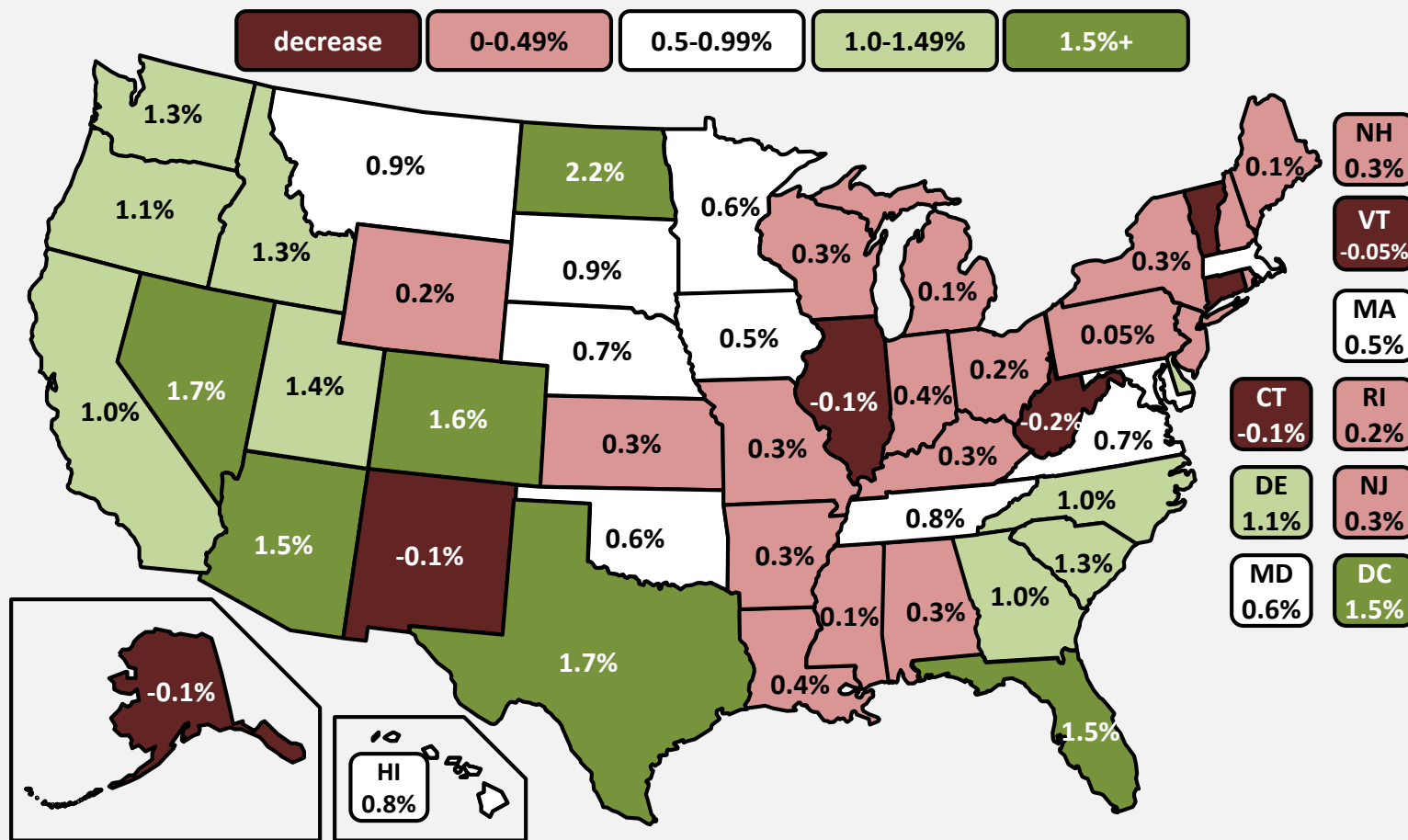
Residential spending: MF, SF gains offset weak improvements



2015 residential spending forecast: 1-14%

- SF: 10% to +16%; rising for now but tight credit, fear of lock-in, demographic shifts may limit increases
- MF: +10 to +20%; upturn should last through 2015
 - Vacancy rates near multi-year lows in most cities
 - Preference for urban living adds to demand
 - Condos have been slower to revive than rentals
 - Government-subsidized market remains weak
- Improvements: -10 to +10%; reported 2014-15 decline is not credible; should track SF sales

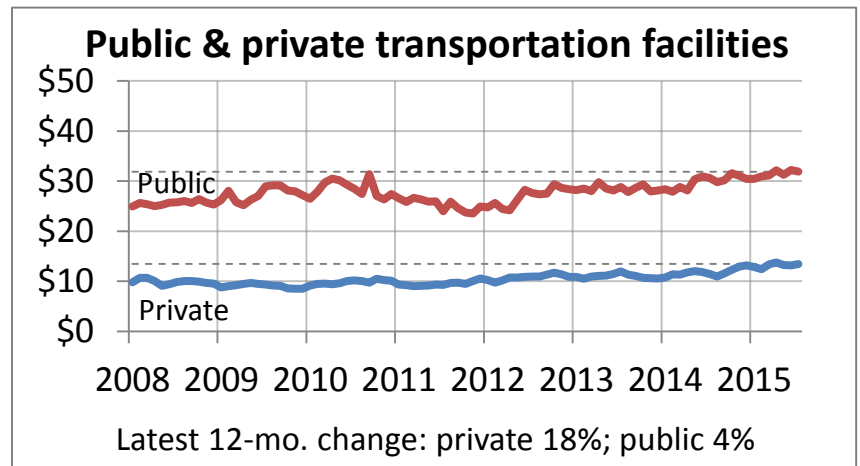
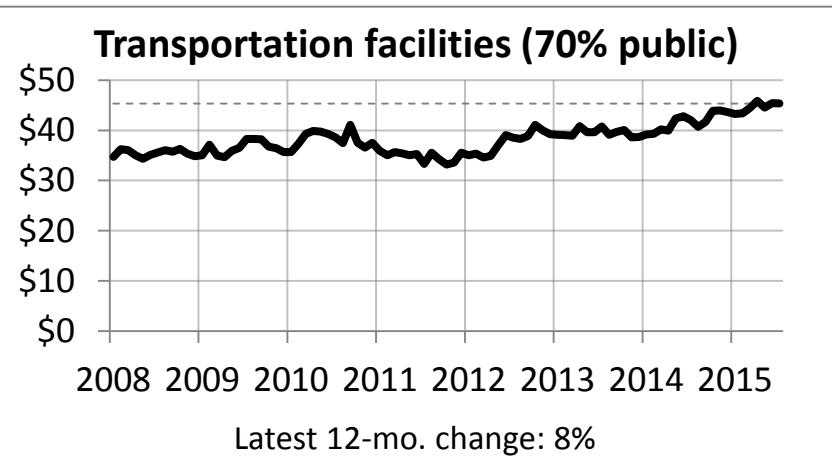
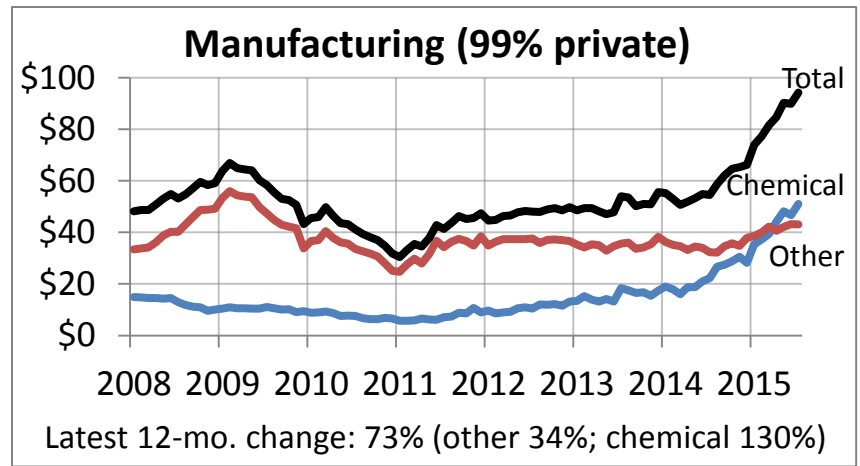
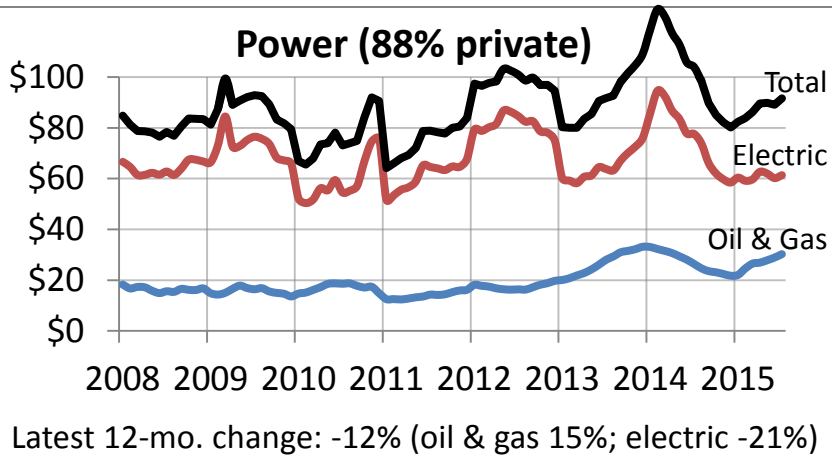
Population change by state, July 2013-July 2014 (U.S.: 0.75%)



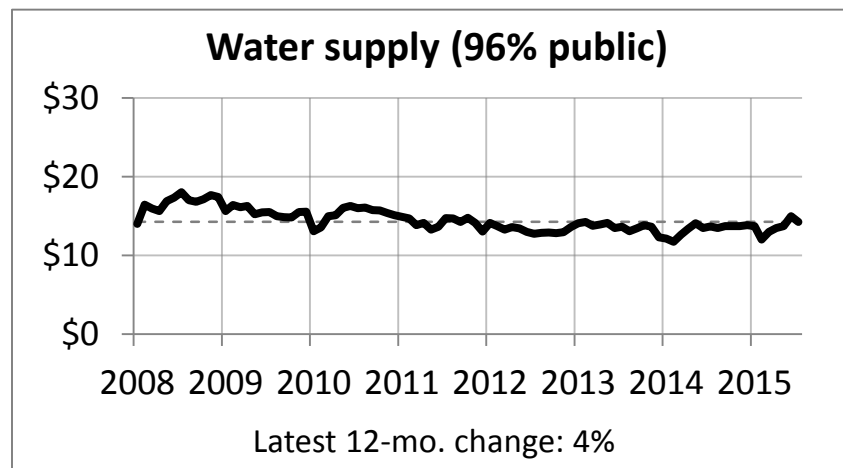
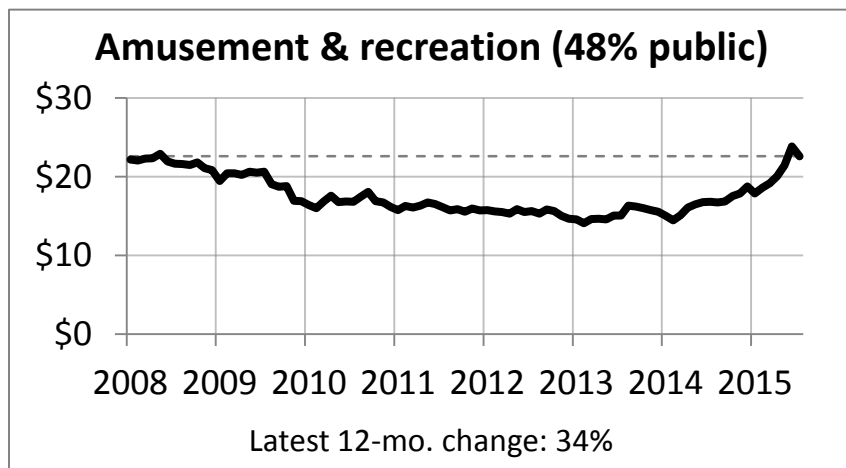
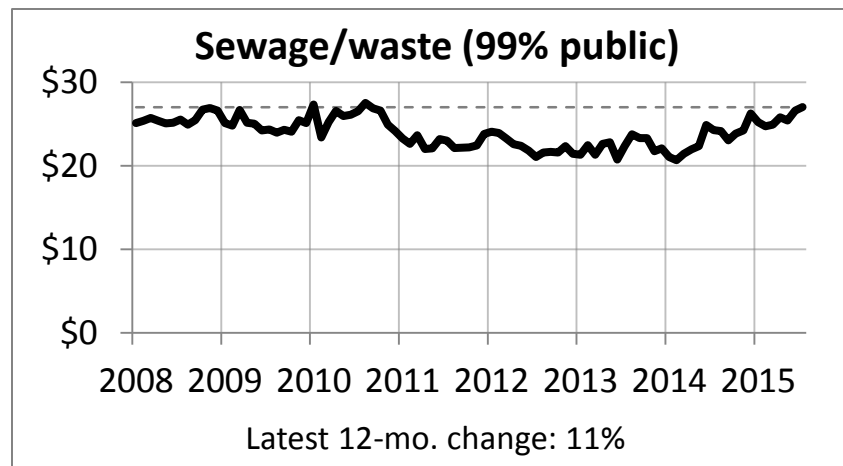
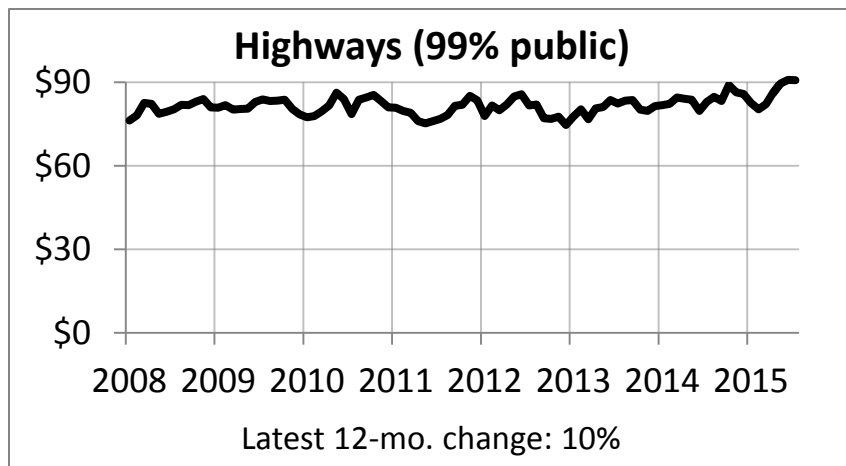
Nonresidential segments: 2014 total & 2015 forecast

	<u>2014 total</u>	<u>Jan.-July YTD</u>		<u>2015 forecast</u>
		<u>2015 vs. 2014</u>		
Nonresidential	\$618 billion	9	%	5-12%
Power (incl. oil & gas structures, pipelines)	101	-22		-10 to 0
Highway and street	84	6		-2 to 3
Educational	80	4		0 to 5
Commercial (retail, warehouse, farm)	63	12		5 to 10
Manufacturing	58	59		40 to 50
Office	46	23		15 to 20
Transportation	42	8		5 to 10
Health care	38	5		3 to 6
Sewage and waste disposal	23	14		10 to 20
Amusement & recreation	17	30		25 to 35
Lodging	16	30		20 to 30
Other (communication; water; public safety; conservation; religious): 8% of total		5		0 to 10

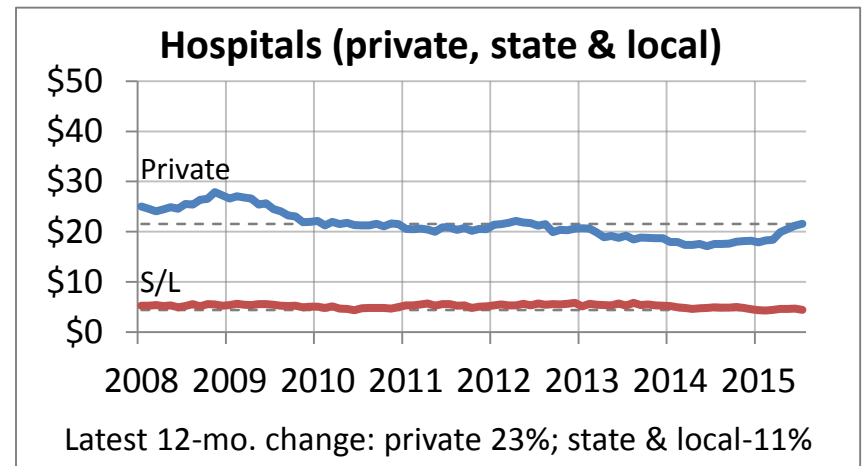
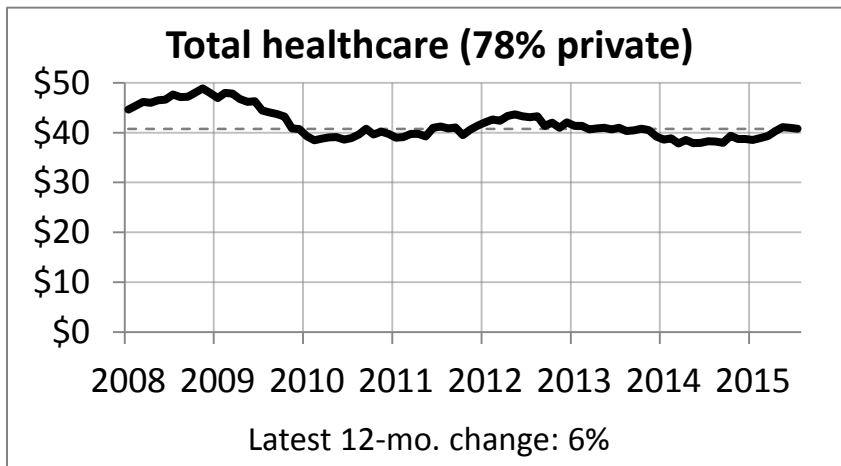
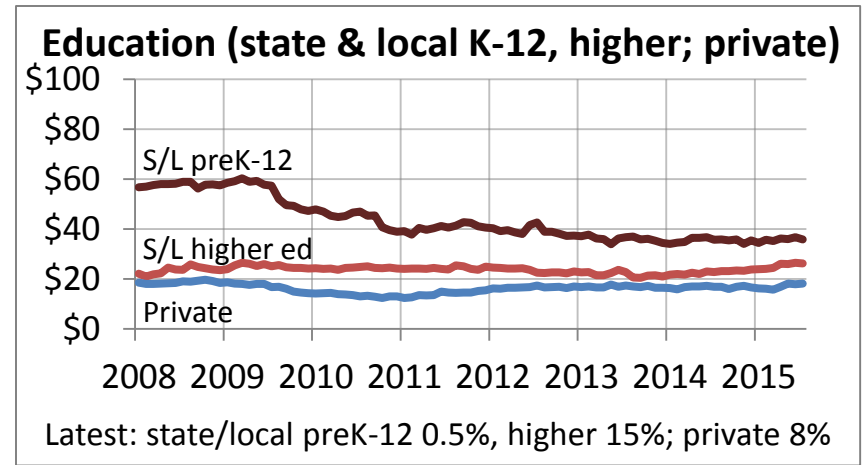
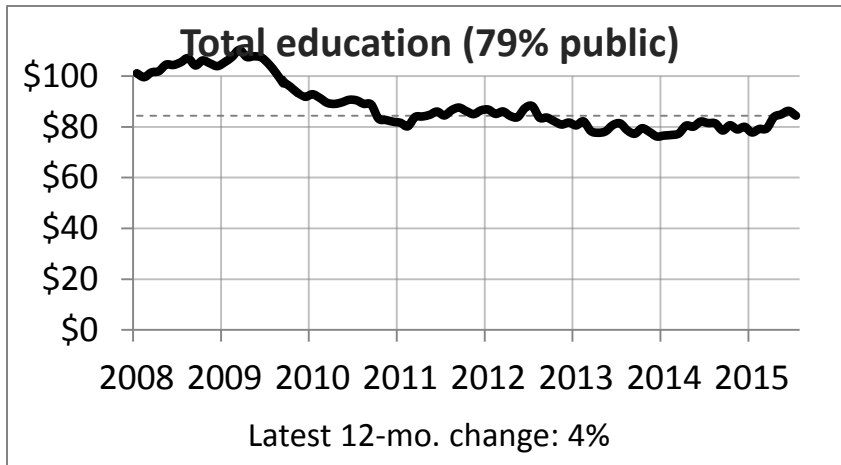
Construction spending: industrial, heavy (billion \$, SAAR)



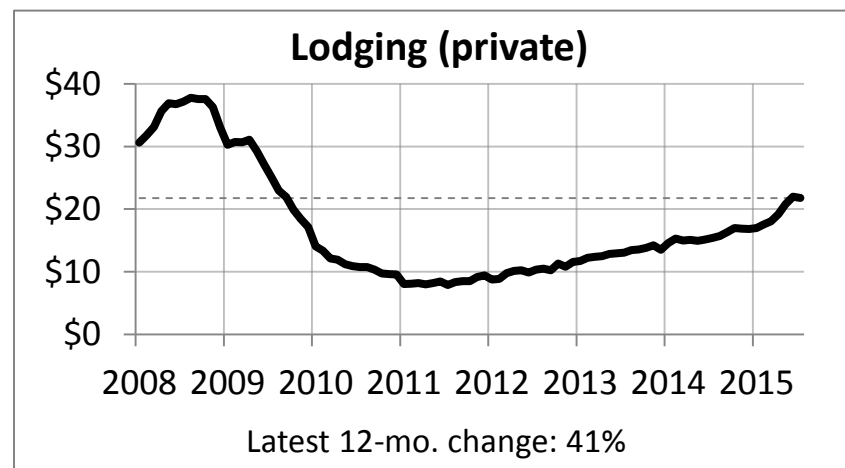
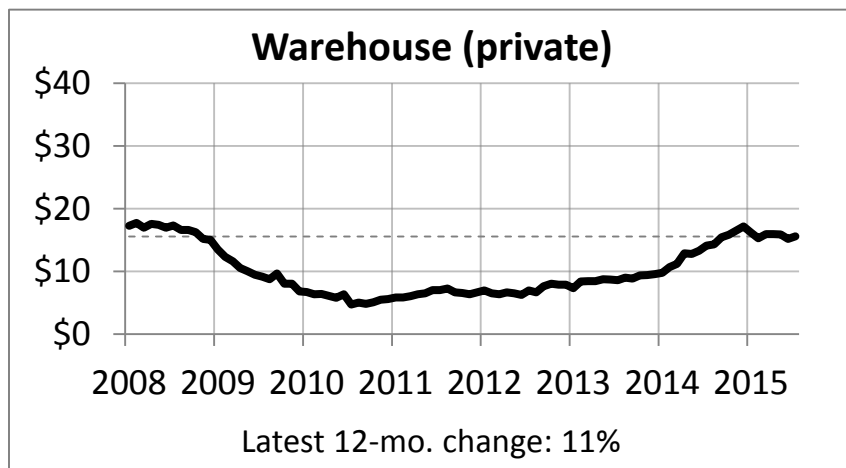
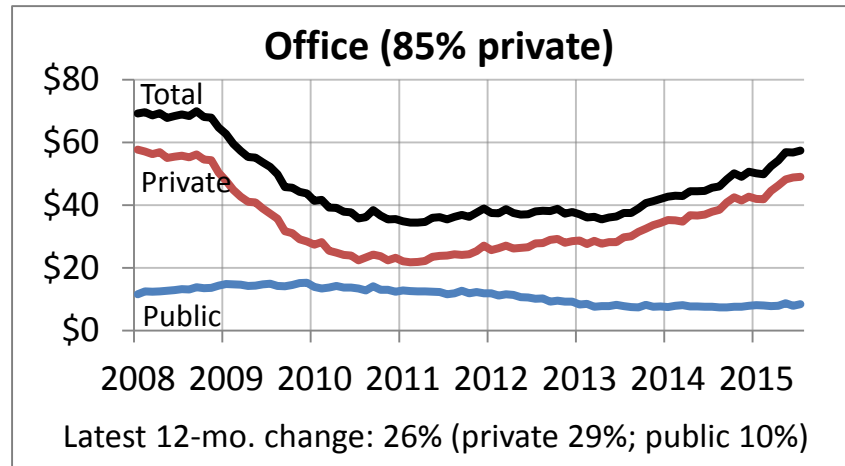
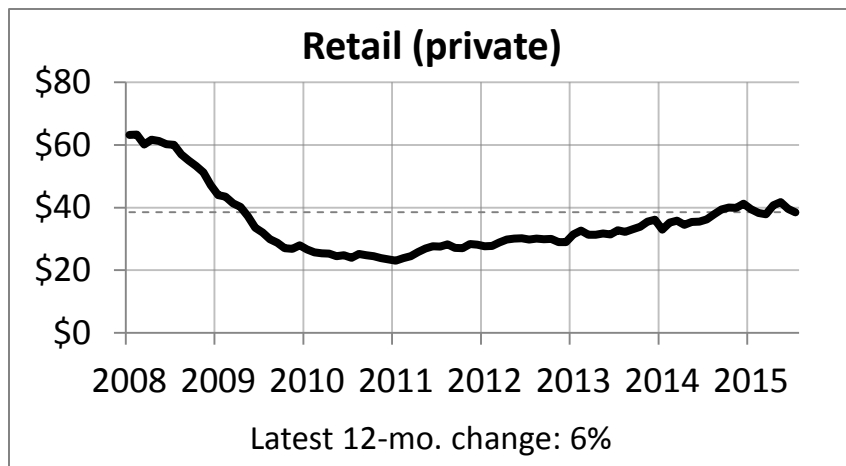
Construction spending: public works (billion \$, SAAR)



Construction spending: institutional (private + state/local)



Construction spending: developer-financed (billion \$, SAAR)

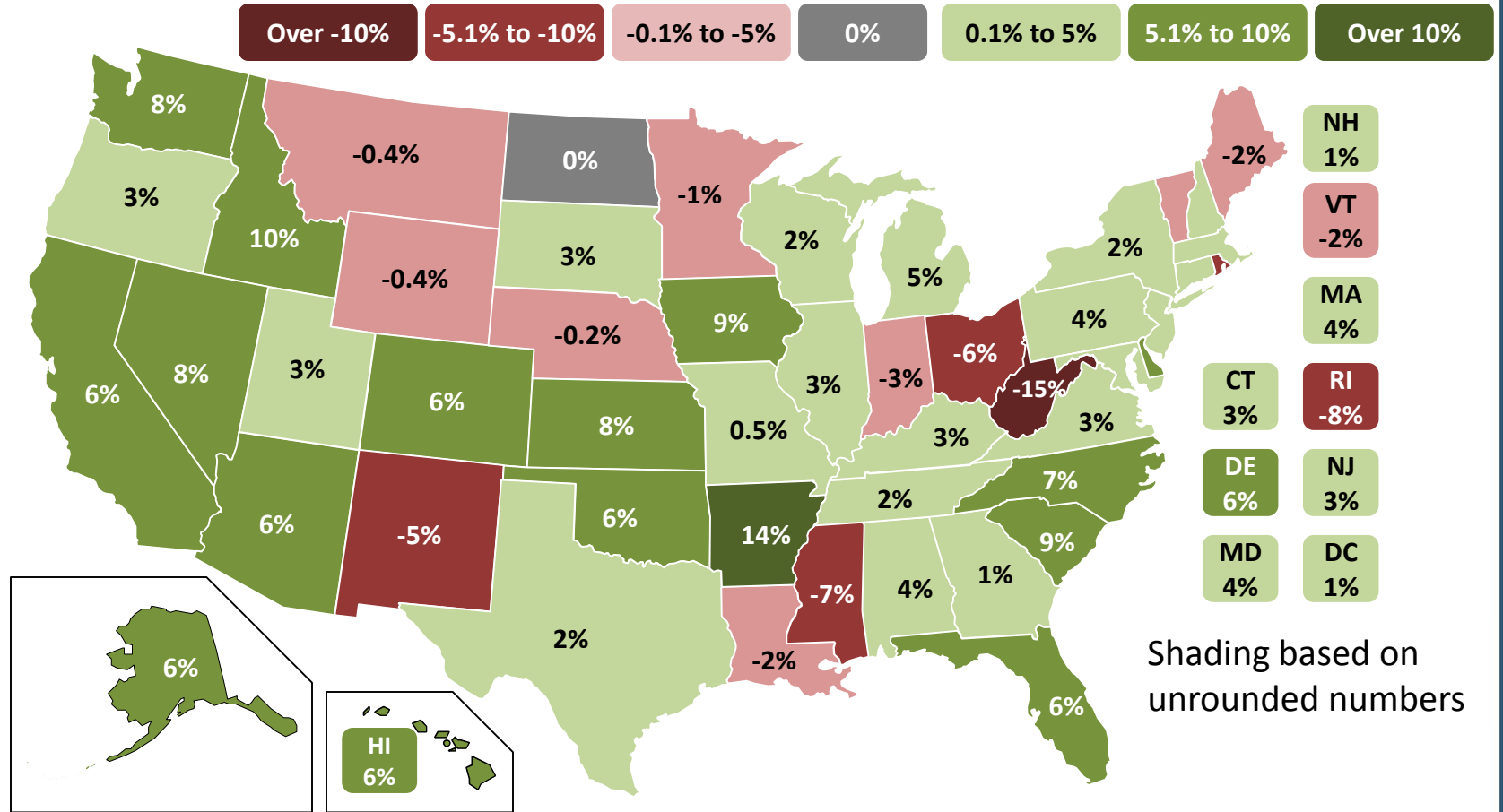


Major locations for data centers



State construction employment change (U.S.: 3.6%)

8/14 to 8/15: 36 states + DC **up**, 1 unchanged, 13 **down**



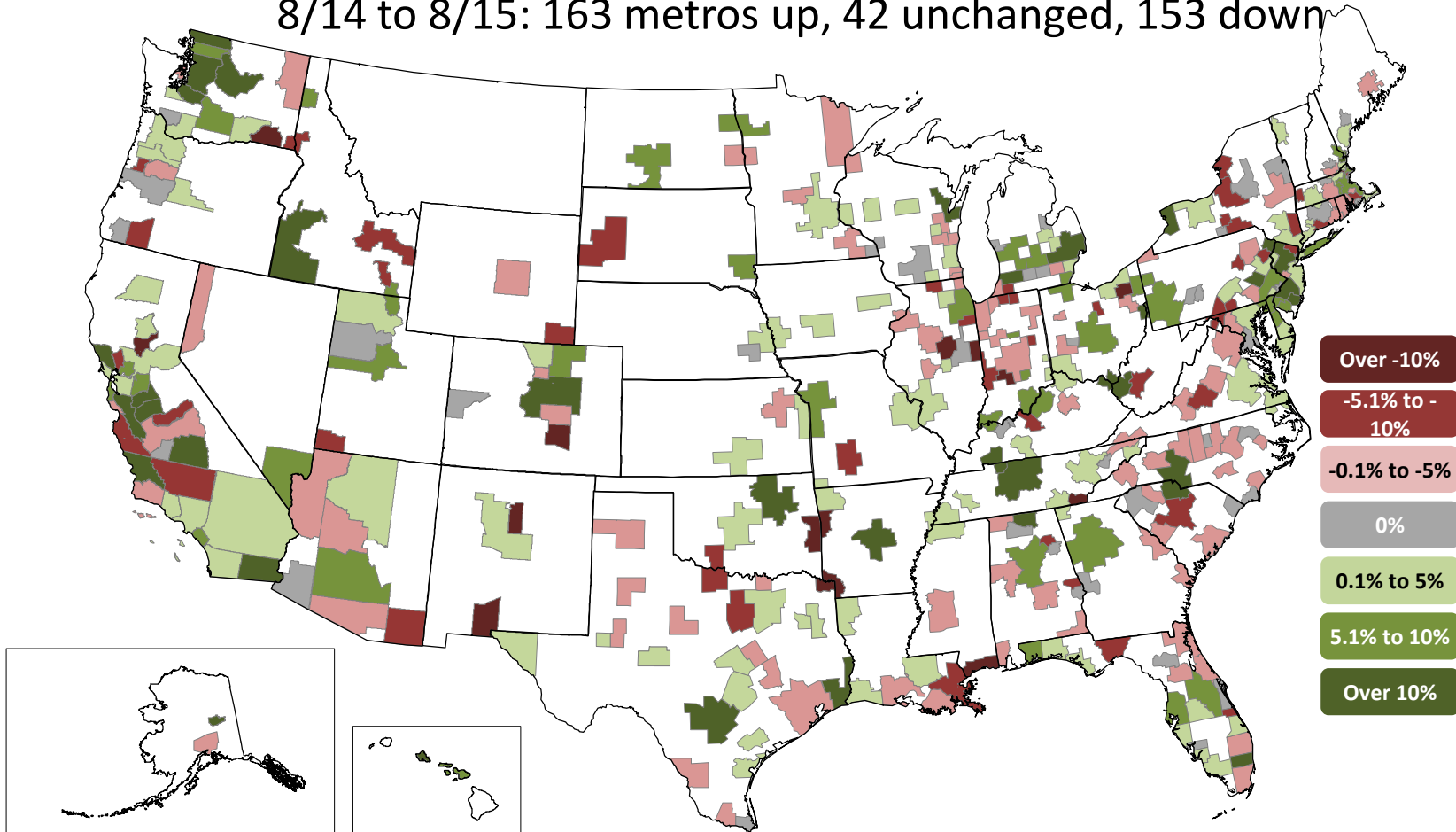
Shading based on unrounded numbers

12-Month Percent Change in State Construction Employment (seasonally adjusted), 2010-August 2015



Metro construction employment change

8/14 to 8/15: 163 metros up, 42 unchanged, 153 down



Hardest positions to fill

(% of respondents who are having trouble filling)

Hourly craft professionals	79%
Carpenters	73
Sheet metal installers	65
Concrete workers	63
Electricians	60
Salaried professionals	52%
Project managers/supervisors	55
Estimators	43
Engineers	34

How contractors are coping with worker shortages

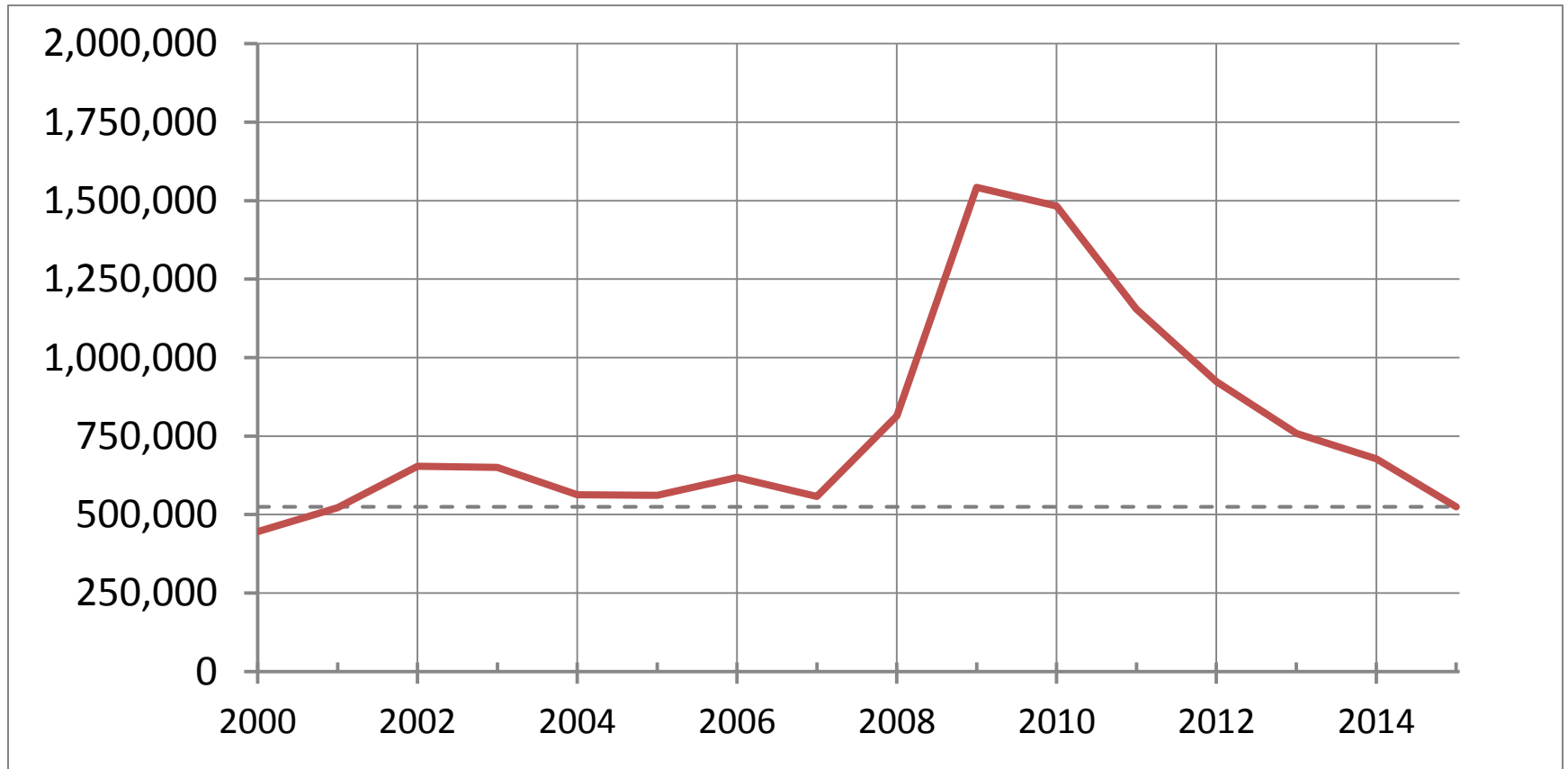
Increasing compensation:

	Hourly	Salaried
Raising base pay	56%	48%
Providing incentives/bonuses	23	29
Increasing contributions/benefits	23	23
Paying more overtime	16	4

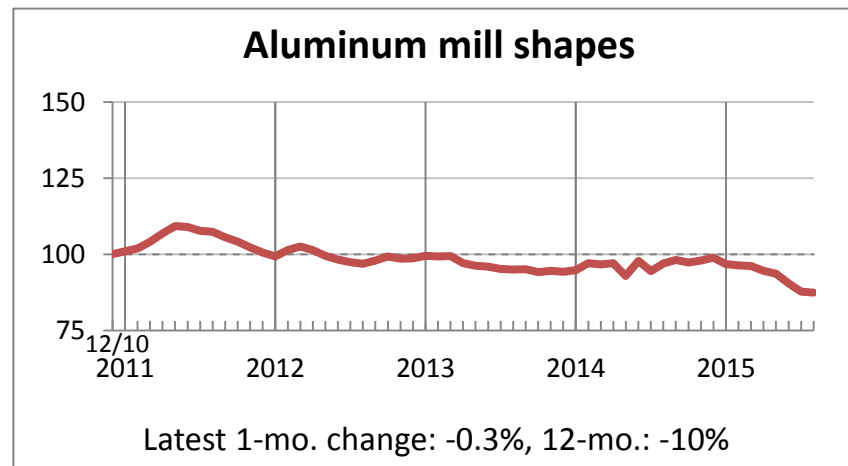
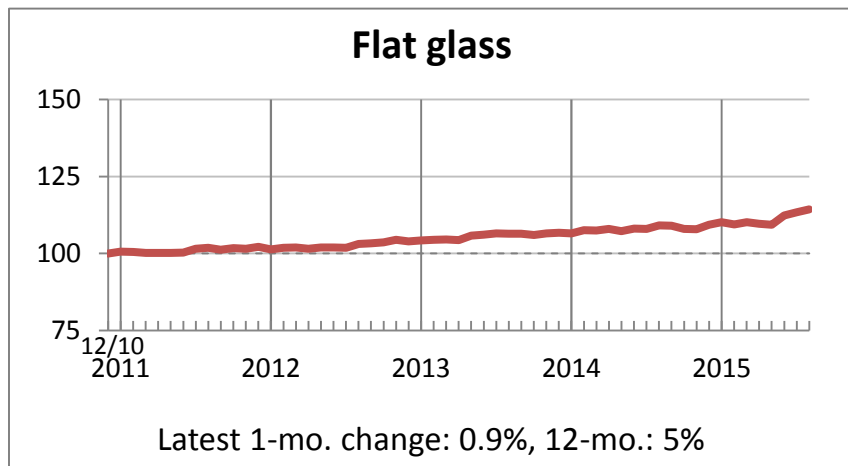
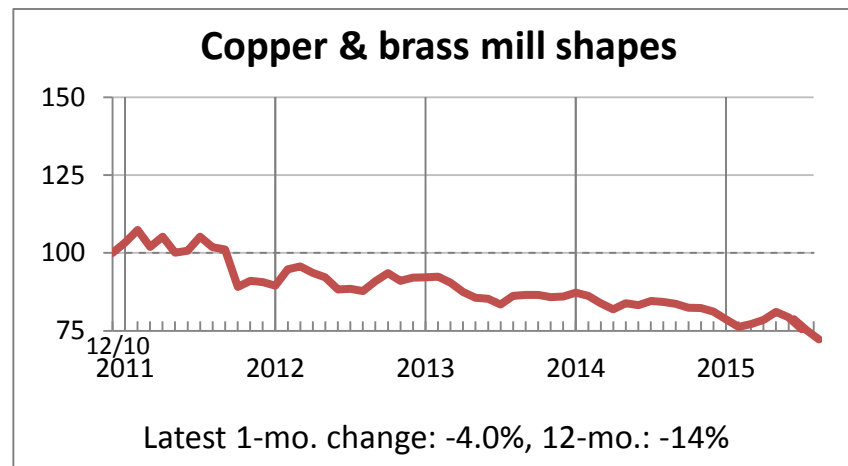
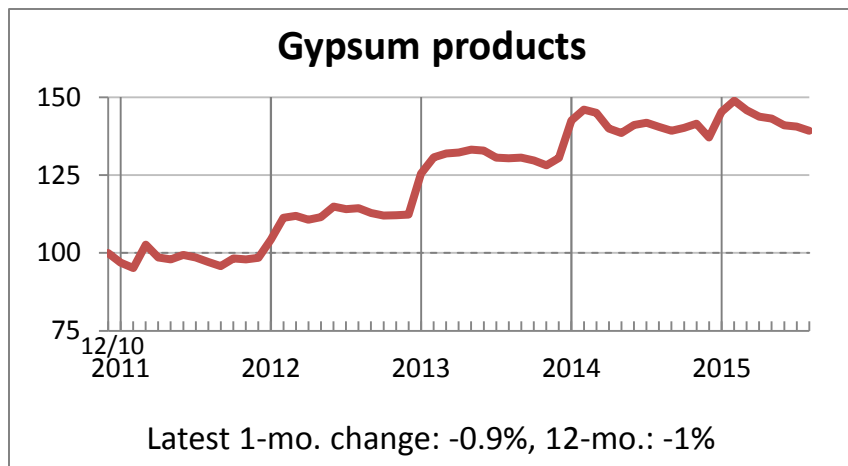
Increasing use of:

Subcontractors	43%
Staffing company	33
Labor-saving equipment, tools, machinery	19
Lean construction	13
Offsite prefabrication	9
Unions	9
Building information modeling (BIM)	7

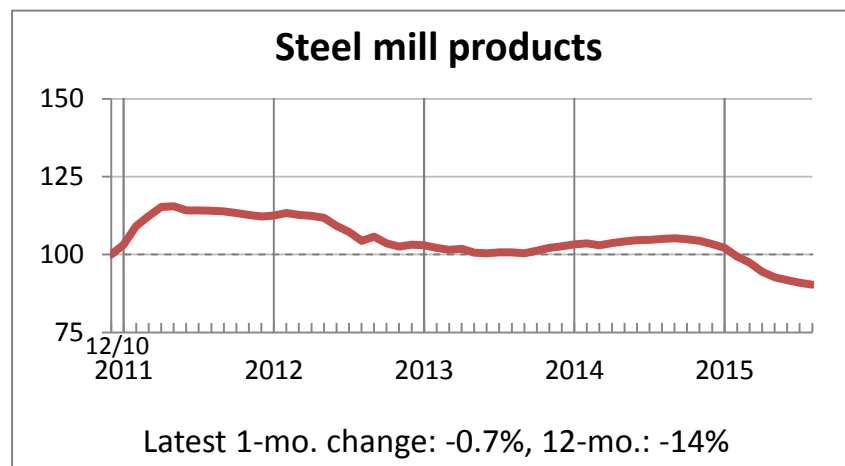
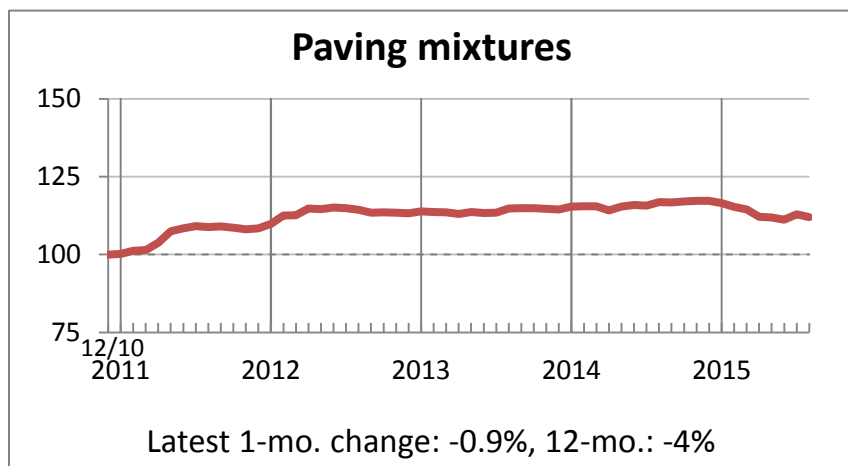
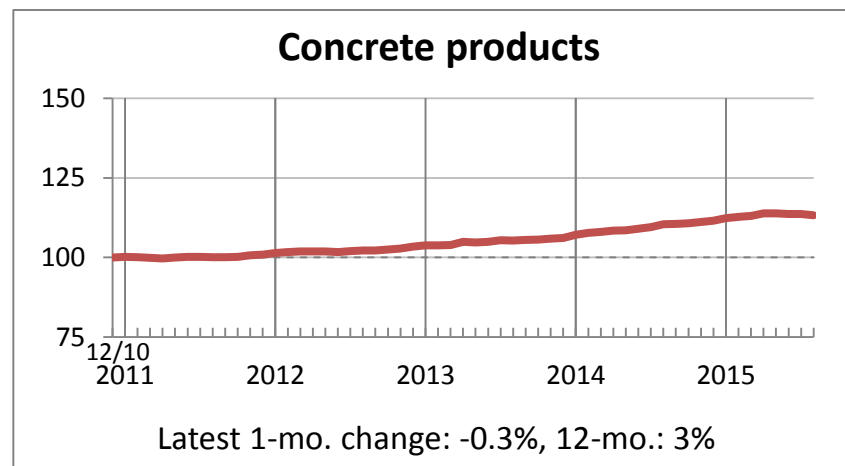
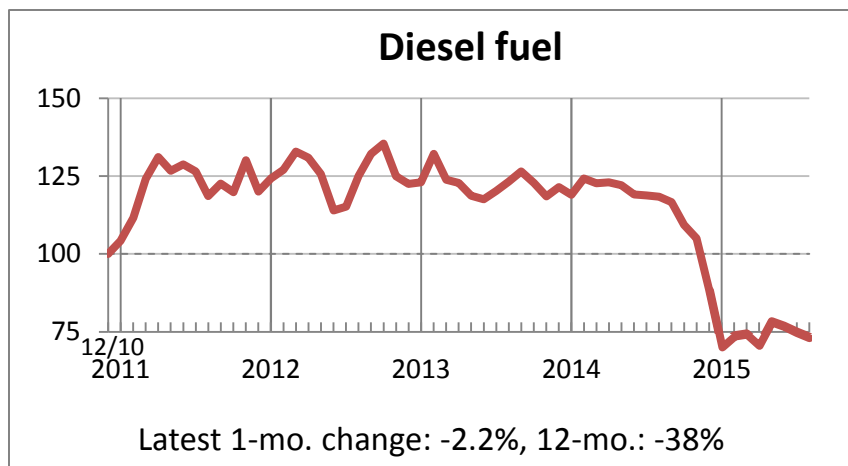
Unemployed construction workers, Aug. 2000-Aug. 2015 (not seasonally adjusted)



Producer price indexes for key inputs, 12/10-8/15 (Dec. 2010=100)



Producer price indexes for key inputs, 12/10-8/15 (Dec. 2010=100)



Trends: 2015-2017

- Total construction spending: +6% to +10% per year
 - weak SF housing, retail; flat public spending
 - new drivers: shale-based gas & oil; Panama Canal widening; more elderly & kids, fewer young adults
- Materials costs: -1 to +3% (similar to CPI); rare spikes
- Labor costs: +2.5% to + 5%
- Labor supply: widespread shortages possible due to retirements, competition from other sectors, fewer vets

Summary for 2014, 2015-17 forecast

	2014 actual	Jan.-July YTD '15 vs. '14	2015-17 annual average forecast
Total spending	5%	9%	6-10%
Private – residential	4%	10%	1-10%
– nonresidential	11%	11%	1-10%
Public	2%	5%	near 0
Materials PPI	-0.9%	(Jul) -3%	0-3%; rare spikes
Employment cost index	1.8%	(Q2) 2.1%	3-5%

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
- state and metro data, fact sheets: www.agc.org/learn/construction-data
- webinars: 10/1 (www.nabe.com), 11/19 w/ AIA, CMD (email for link)



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 1.5% 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 30 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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