Quality People.
Quality Projects.

Construction Spending, Labor & Materials Outlook

GSU Economic Forecasting Conference

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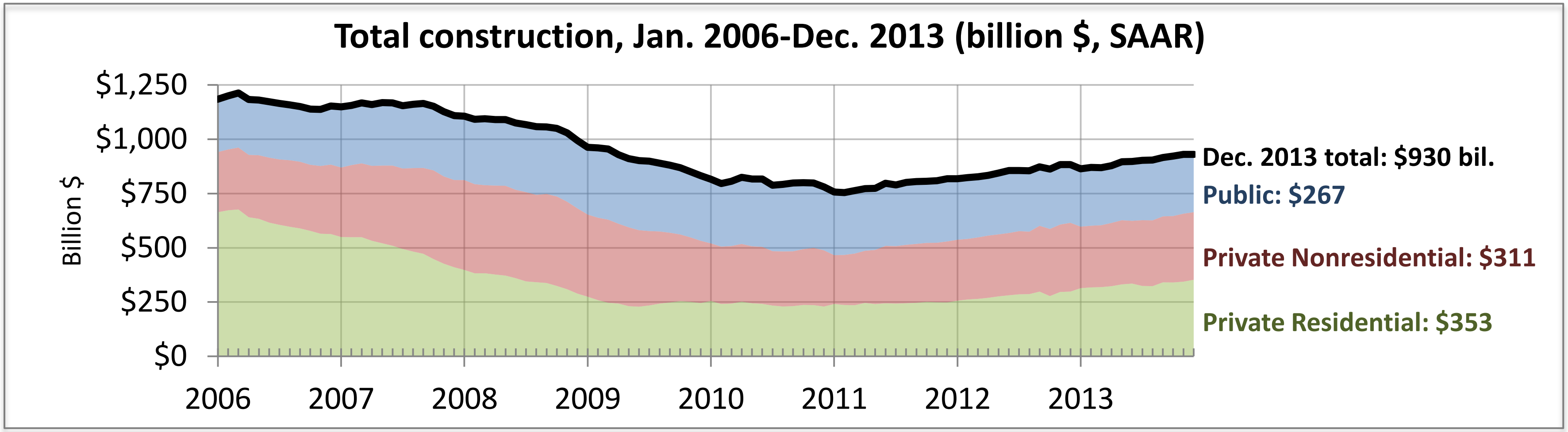
2014 AGC Construction Outlook Survey Results

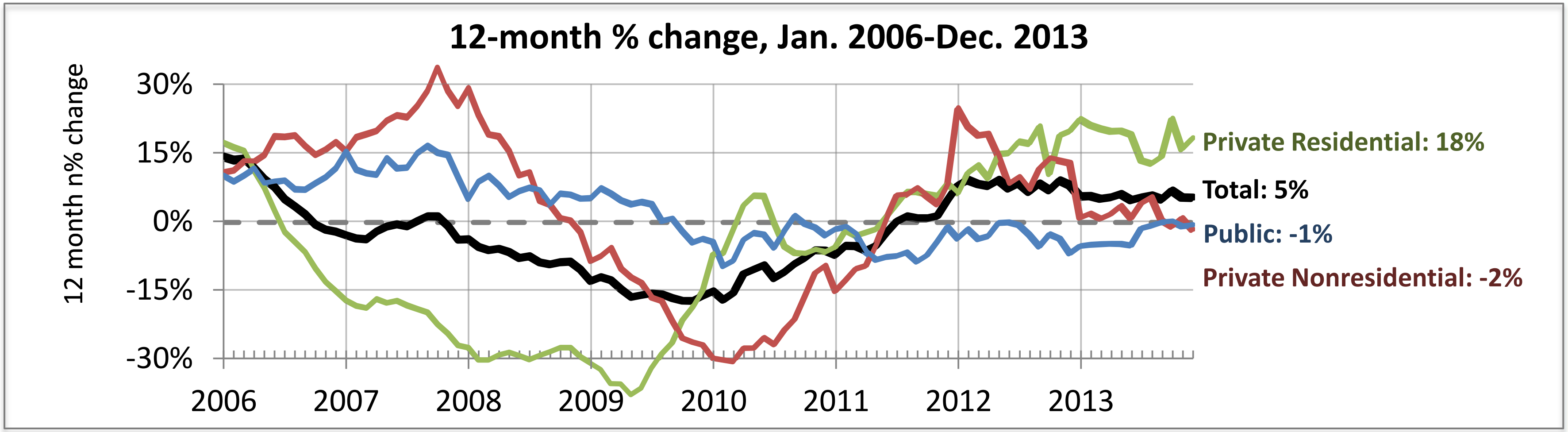
Compared to 2013, do you expect the available dollar volume of project you compete for in 2014 to be:

Category	Net	Higher	Lower	Same
Manufacturing	+28%	44%	16%	40%
Retail, warehouse, lodging	+28	43	16	41
Private office	+28	43	14	43
Hospital/higher education	+25	42	17	41
Power	+25	40	15	45
Water/sewer	+17	35	17	48
Highway	+10	31	21	49
Public buildings	+5	30	25	45
K-12 school	+4	29	25	47
Other transportation	+3	24	21	55
Marine construction	-2%	18	21	61

Source: AGC Outlook Survey, January 2014

Construction spending (seasonally adjusted annual rate—SAAR)





Source: Census Bureau construction spending reports

Construction is growing, but unevenly

3 trends helping many sectors and regions:

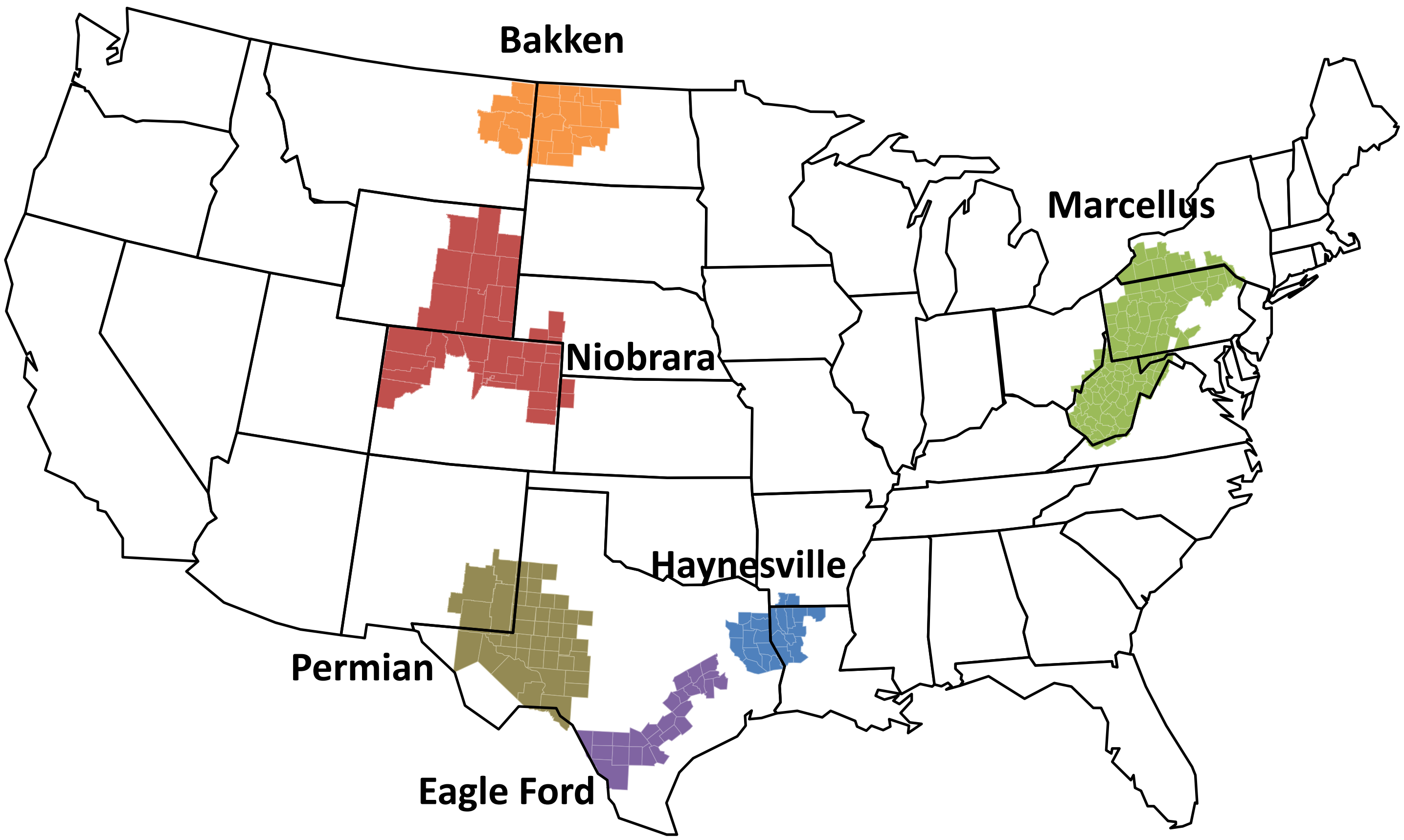
- ‘Shale gale’
- Panama Canal expansion
- Residential revival

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

Source: Author

One (or many) bright spot(s): the shale 'gale'



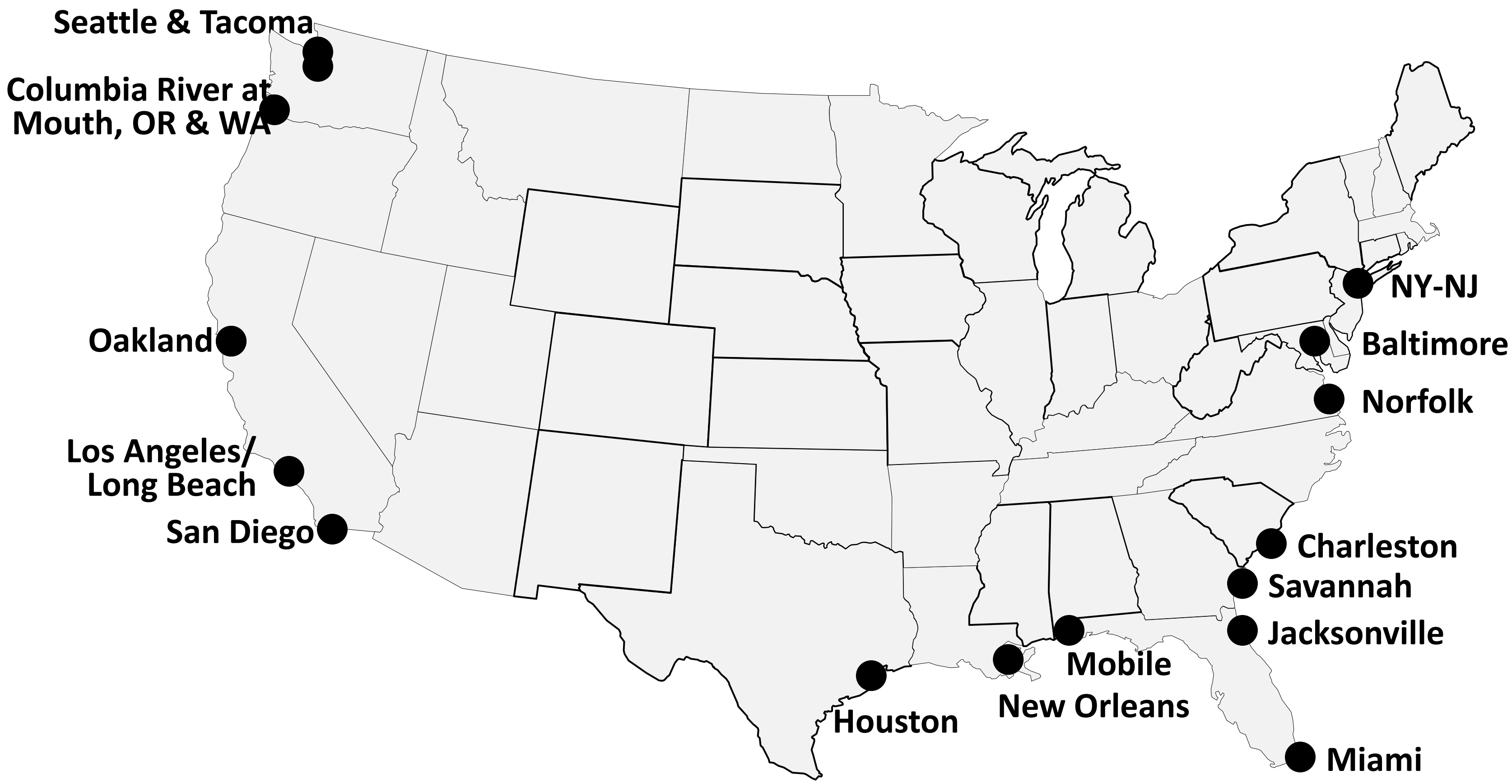
Source: U.S. Energy Information Administration

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; LNG-powered vehicles
- **Losers:** coal; maybe wind, solar, nuclear & suppliers

Source: Author

U.S. ports affected by Panama Canal expansion



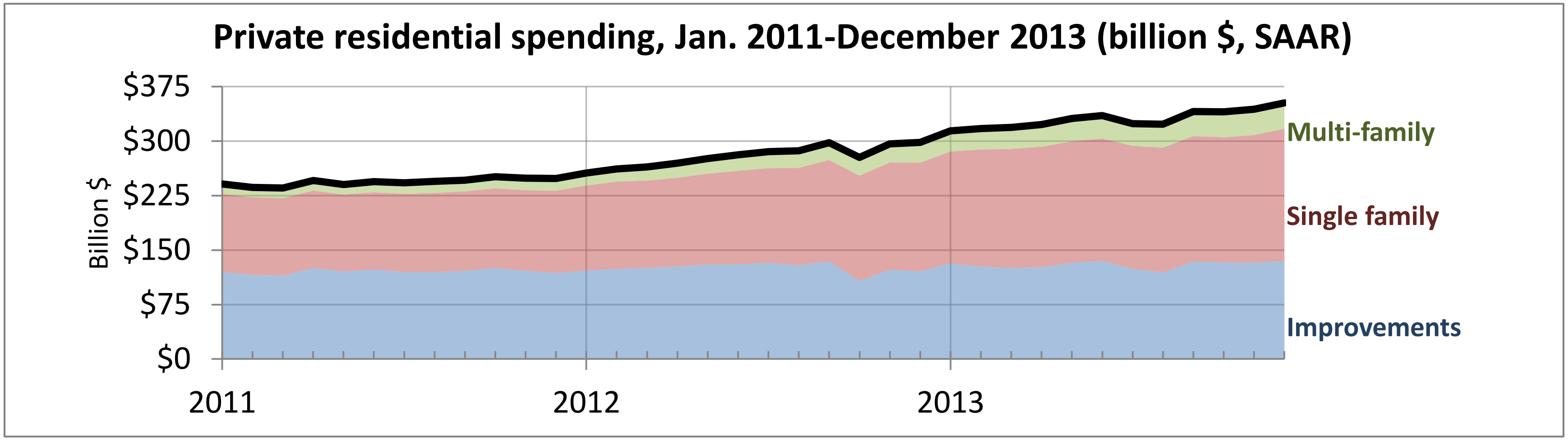
Source: U.S. Army Corps of Engineers

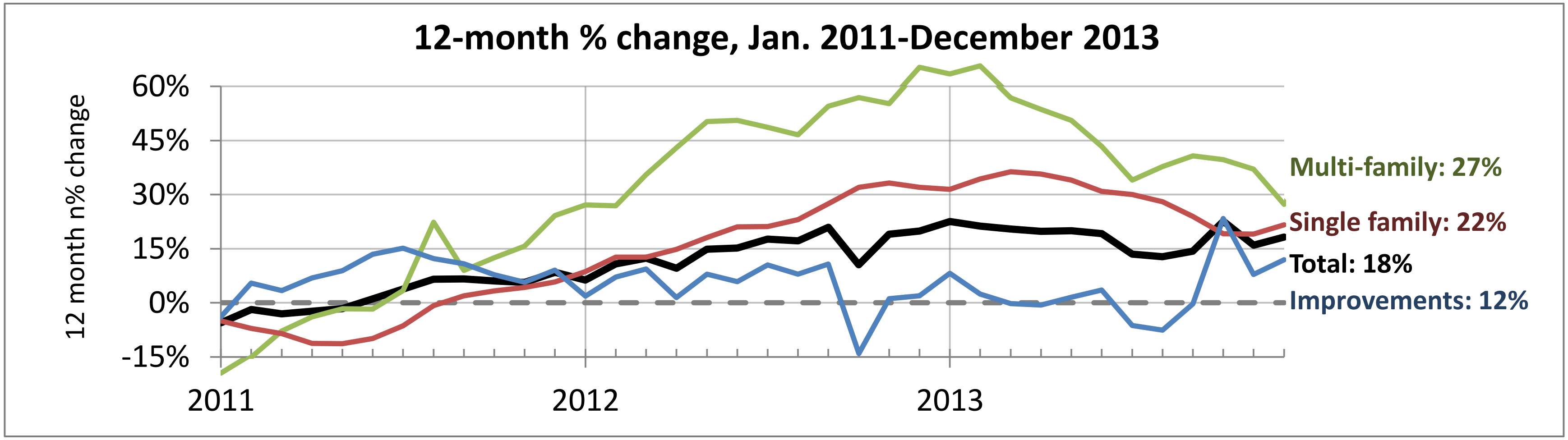
Panama Canal expansion's impacts on construction

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

Source: Author

Private residential spending is still rising—for now





Source: Census Bureau construction spending reports

Housing outlook

- SF: rising for now but tight credit, fear of lock-in, demographic shifts may limit increases
- MF: Upturn should last into late 2014, perhaps 2015
  - Vacancy rates near multi-year lows in most cities
  - Preference for urban living, add to demand
  - Condos have been slower to revive than rentals
  - Government-subsidized market likely to worsen
- Improvements: should benefit from rising SF sales

Source: Author

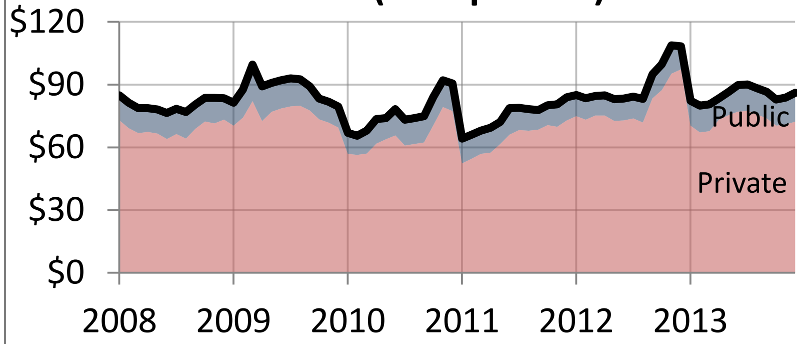
Nonres segments, 2013 & 2014 forecast (billion $, SAAR)

	12/13 Total	2013 vs. 2012	2014 Forecast
Nonresidential	$573 billion	-2%	**4-8 %**
Power (incl. oil & gas structures, pipelines)	86	-11	**10+**
Highway and street	**84**	-7	near 0
Educational	75	**5**	0 to -5
Commercial (retail, warehouse, farm)	**55**	**7**	0 to 5
Manufacturing	49	**5**	**10+**
Transportation	**43**	**9**	**2 to 5**
Office	**41**	**0**	near 0
Health care	40	-3	near 0
Sewage and waste disposal	21	-2	
Lodging	**17**	**26**	**10+**
Communication	15	-13	
Other (Amusement & recreation; water; public safety; conservation; religious): 8% of total		-3	

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

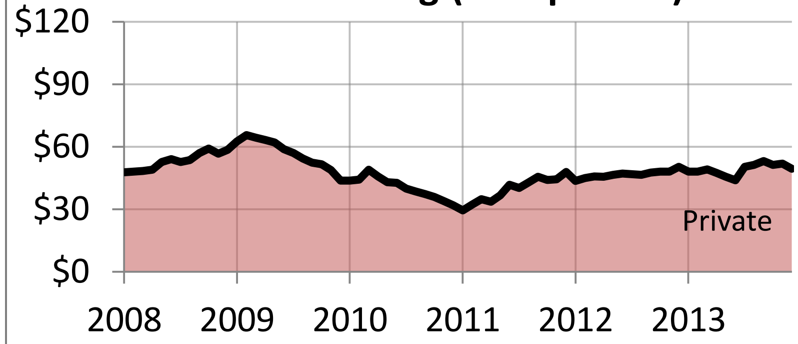
Construction spending: industrial, heavy (billion $, SAAR)

Power (84% private)



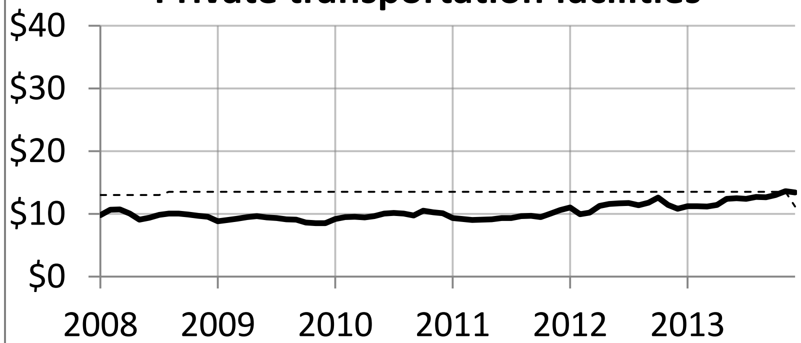
Latest 12-mo. change: -21% (private -26%; public 25%)

Manufacturing (99% private)



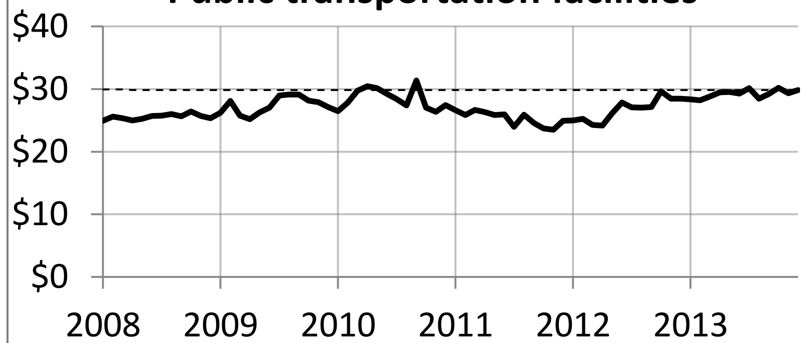
Latest 12-mo. change: -2%

Private transportation facilities



Latest 12-mo. change: 24%

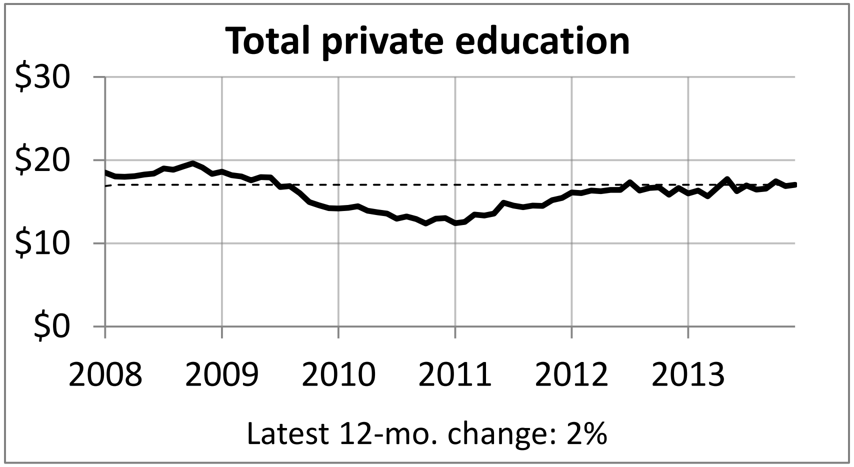
Public transportation facilities

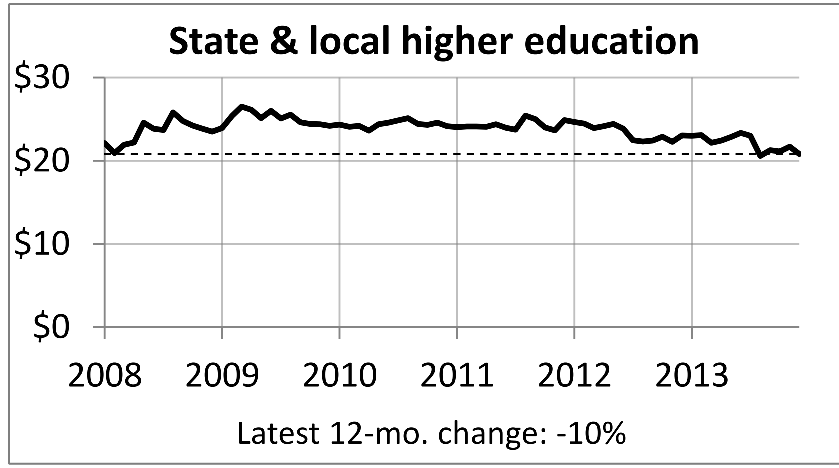


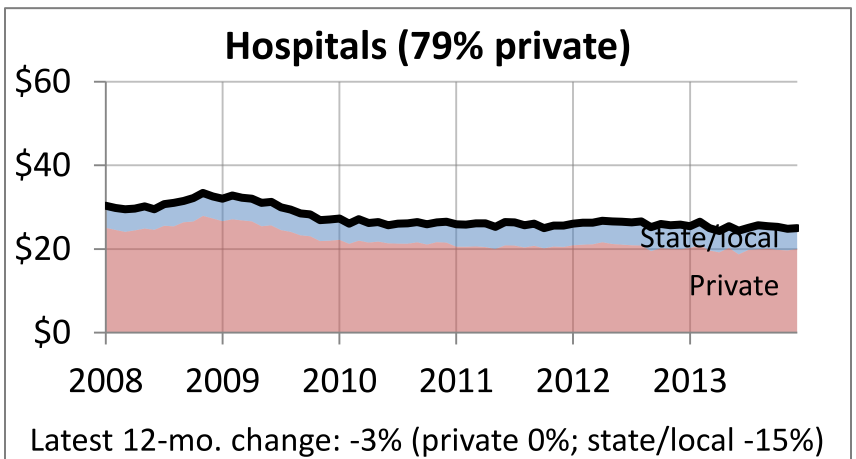
Latest 12-mo. change: 5%

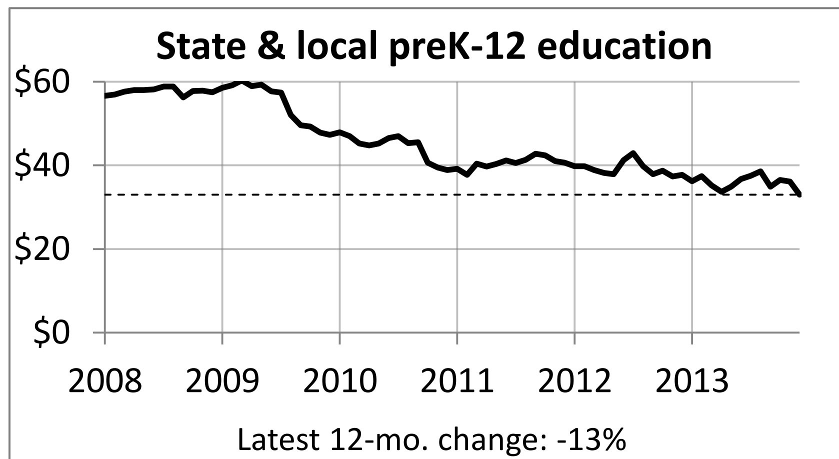
Source: Census Bureau construction spending reports

Construction spending: institutional (private + state/local)





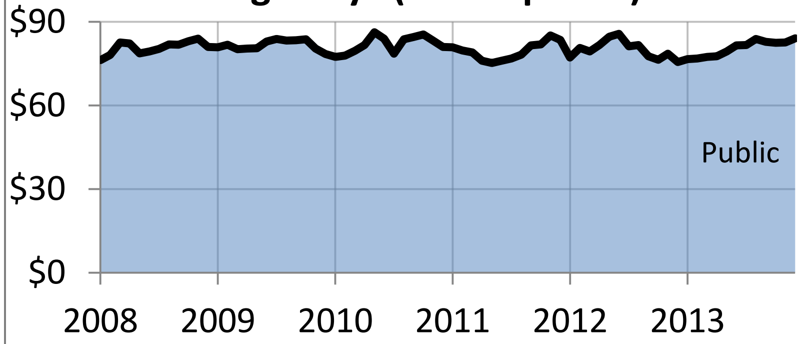




Source: Census Bureau construction spending reports

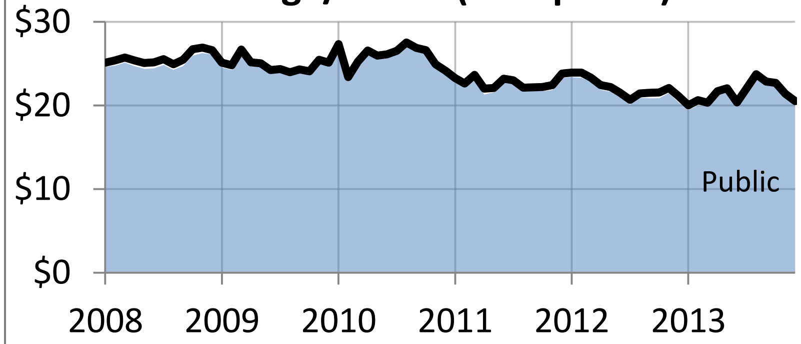
Construction spending: public works (billion $, SAAR)

Highways (99.9% public)



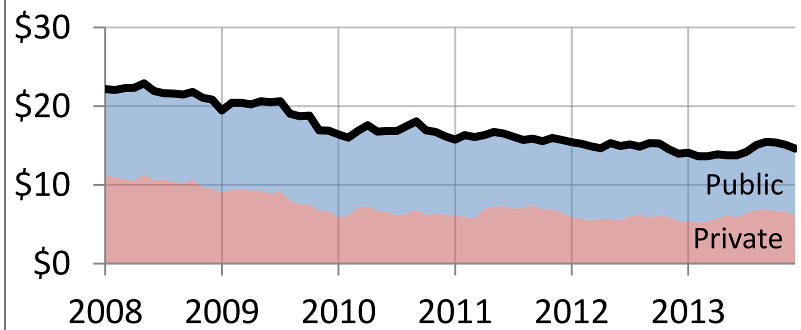
Latest 12-mo. change: 11%

Sewage/waste (99% public)



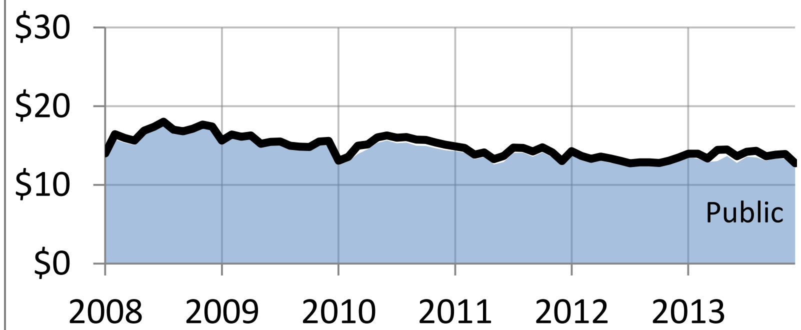
Latest 12-mo. change: -3%

Amusement & recreation (58% public)



Latest 12-mo. change: 5% (private 16%; public -2%)

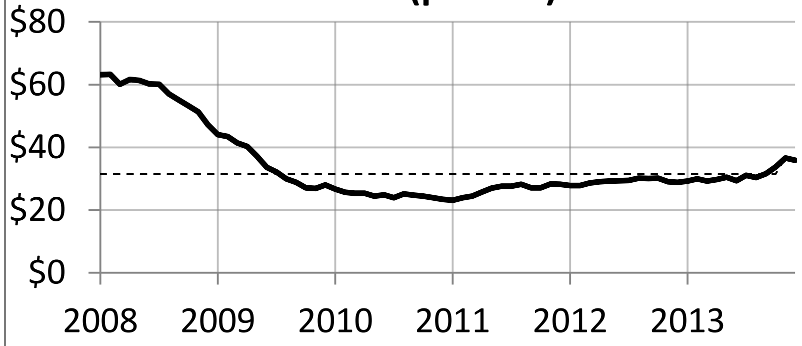
Water supply (95% public)



Latest 12-mo. change: -5%

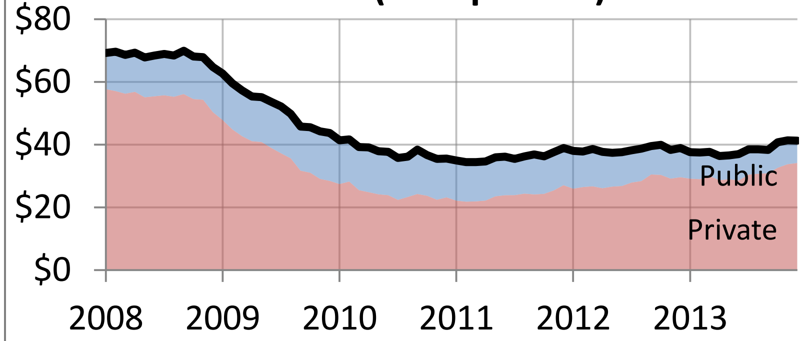
Construction spending: developer-financed (billion $, SAAR)

Retail (private)



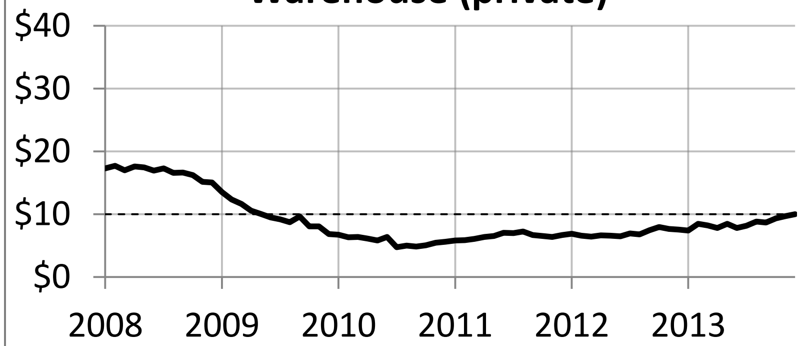
Latest 12-mo. change: 24%

Office (83% private)



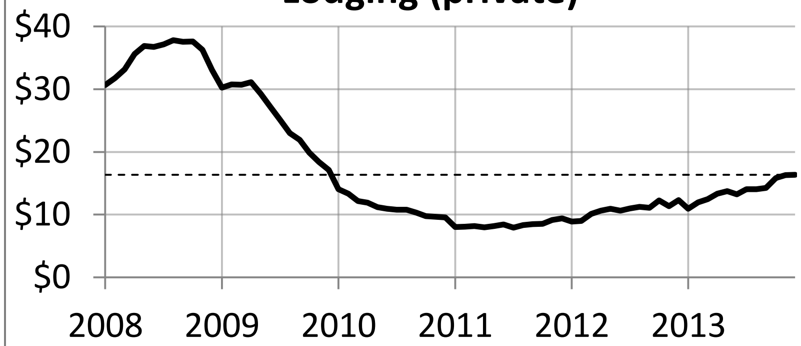
Latest 12-mo. change: 6% (private 15%; public -24%)

Warehouse (private)



Latest 12-mo. change: 32%

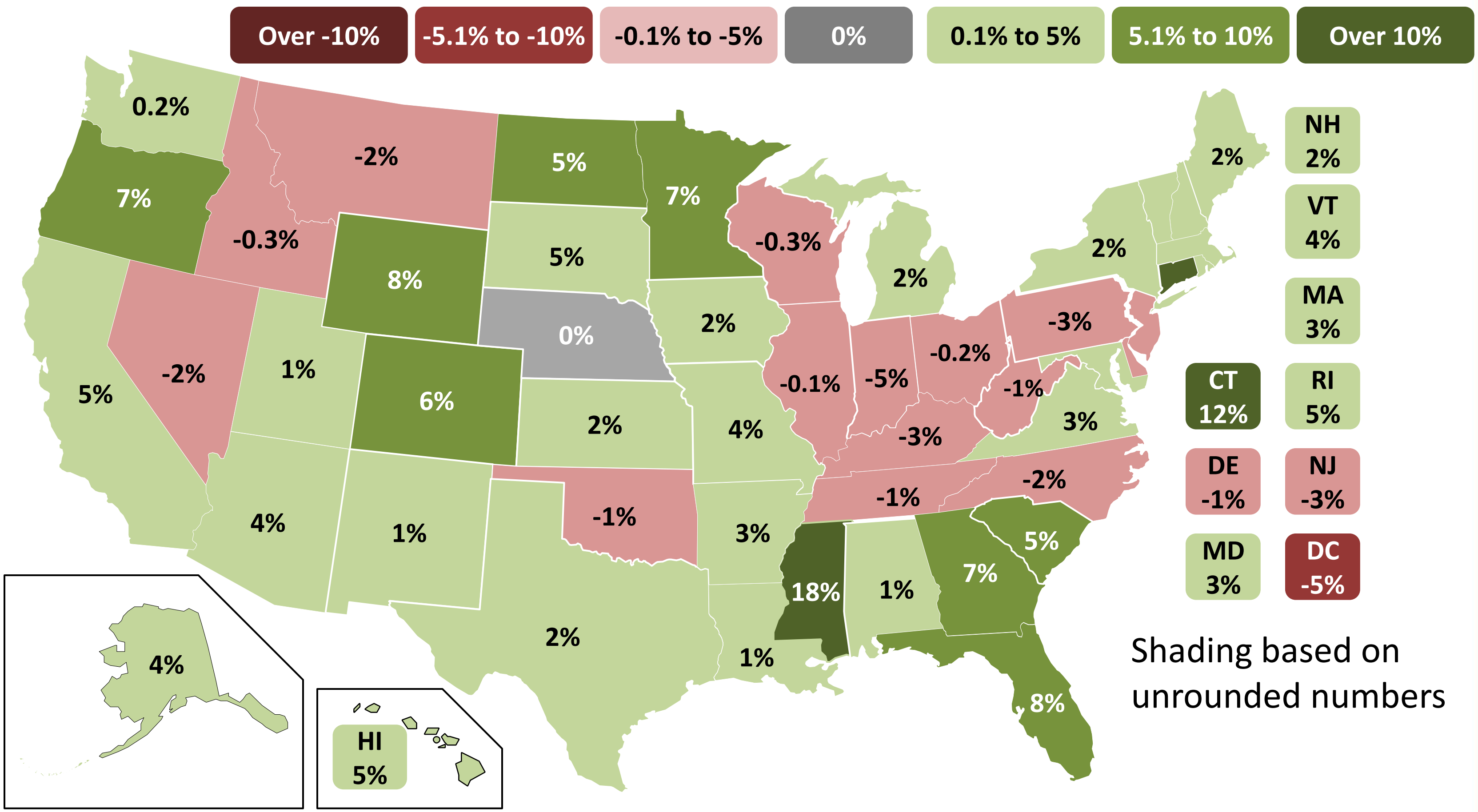
Lodging (private)



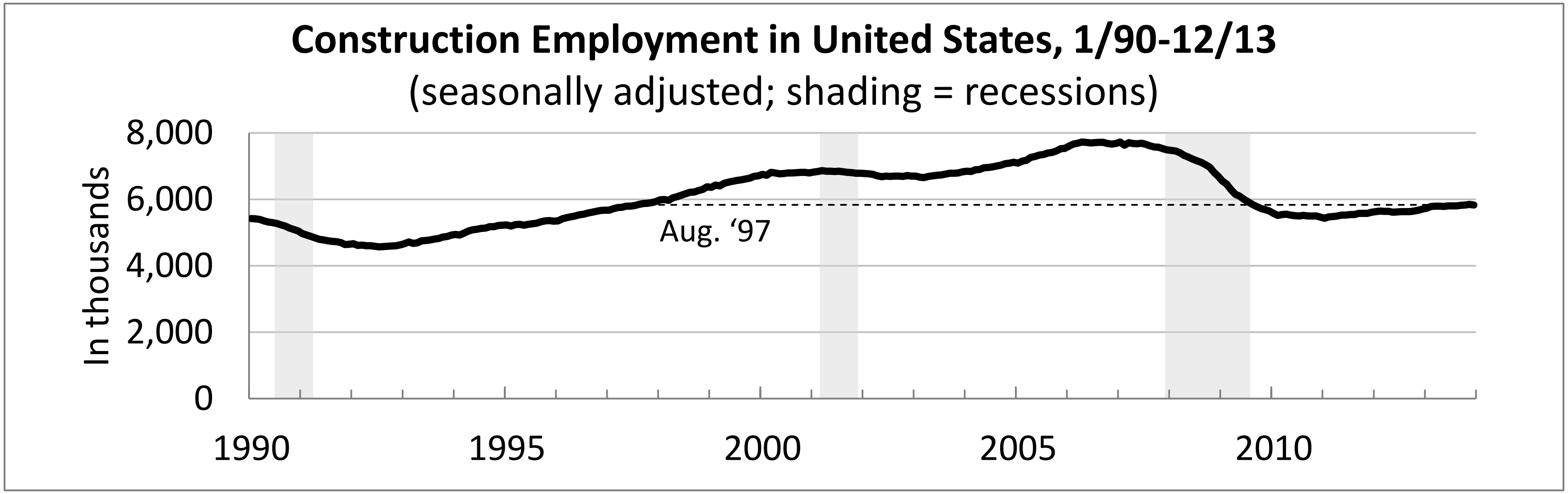
Latest 12-mo. change: 33%

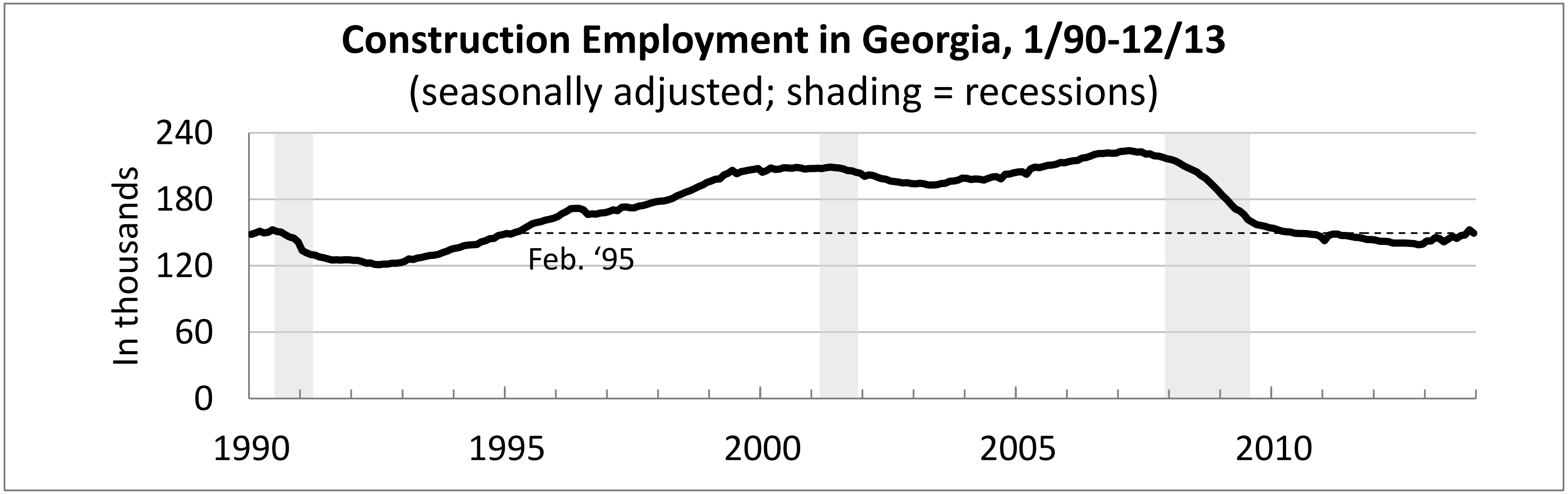
State construction employment change (U.S.: 2.1%)

12/12 to 12/13: 34 states up, 15+ DC down, 1 unchanged



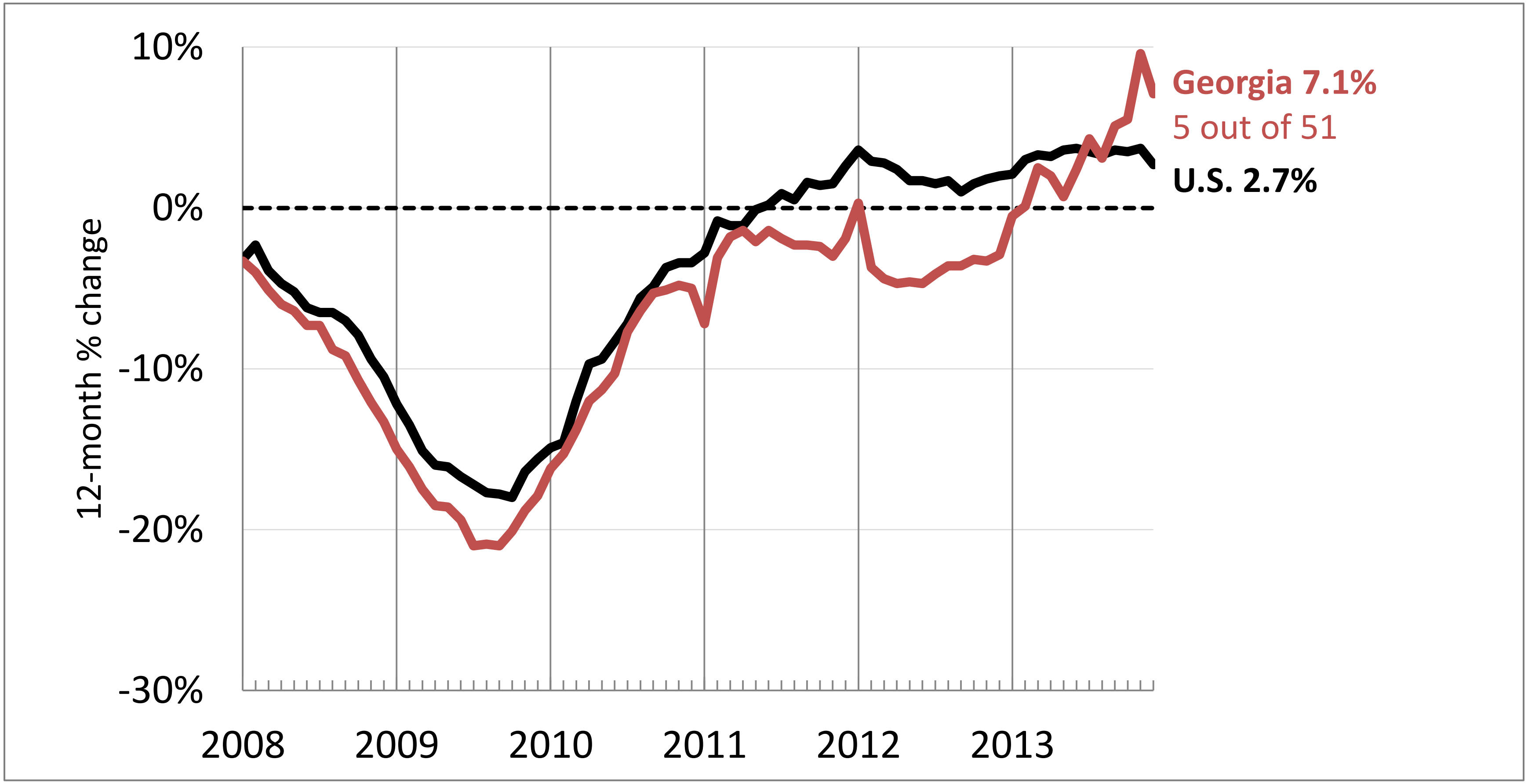
Source: BLS state and regional employment report


Construction Employment in United States, 1/90-12/13
(seasonally adjusted; shading = recessions)
In thousands
8,000
6,000
4,000
2,000
0
Aug. '97
1990
1995
2000
2005
2010


Construction Employment in Georgia, 1/90-12/13
(seasonally adjusted; shading = recessions)
In thousands
240
180
120
60
0
Feb. '95
1990
1995
2000
2005
2010

Source: BLS

Construction Employment Change from Year Ago
1/08-12/13 (seasonally adjusted)



Source: BLS

Change in construction employment, 12/12-12/13

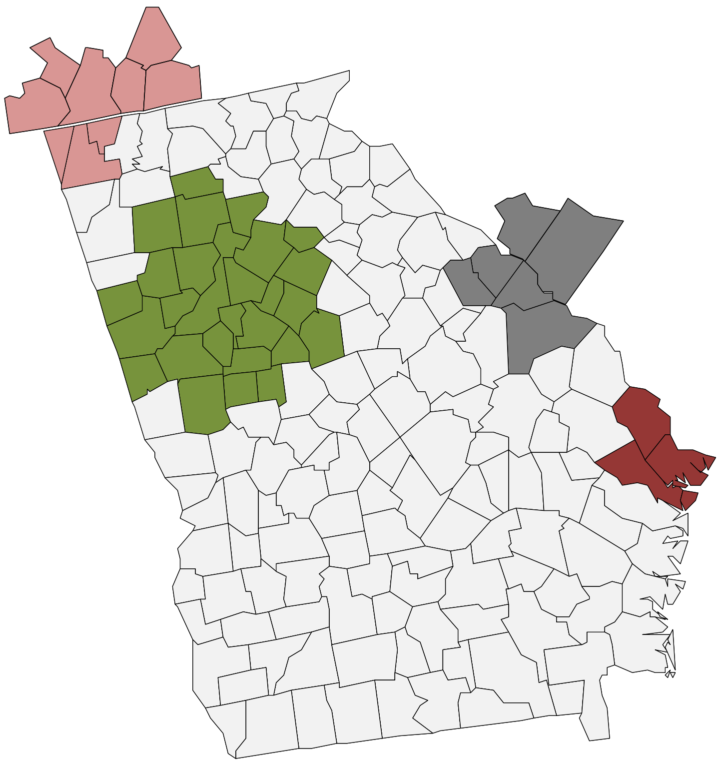
not seasonally adjusted (NSA)

Metro area or division	12-mo. empl. change (NSA)	Rank (out of 339)
Statewide (Construction)	7%	
Statewide* (Const/mining/logging)	7%	
Atlanta-Sandy Springs-Marietta	10%	29
Augusta-Richmond County, GA-SC*	0%	193
Savannah*	-7%	312
*Chattanooga, TN-GA**	*-2%*	*265*

**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 GA metro, 12/12-12/13



Over 10%

5.1% to 10%

0.1% to 5%

0%

-0.1% to -5%

-5.1% to -10%

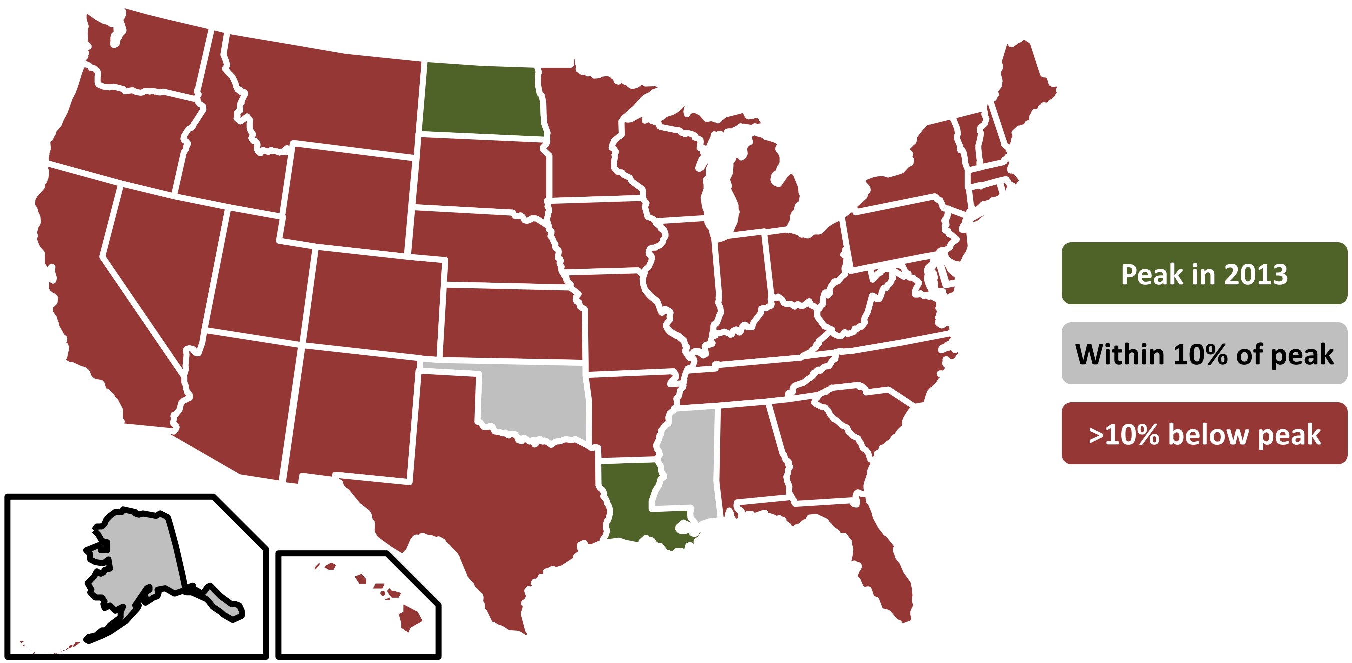
Over -10%

Shading based on unrounded numbers

Source: BLS state and regional employment report

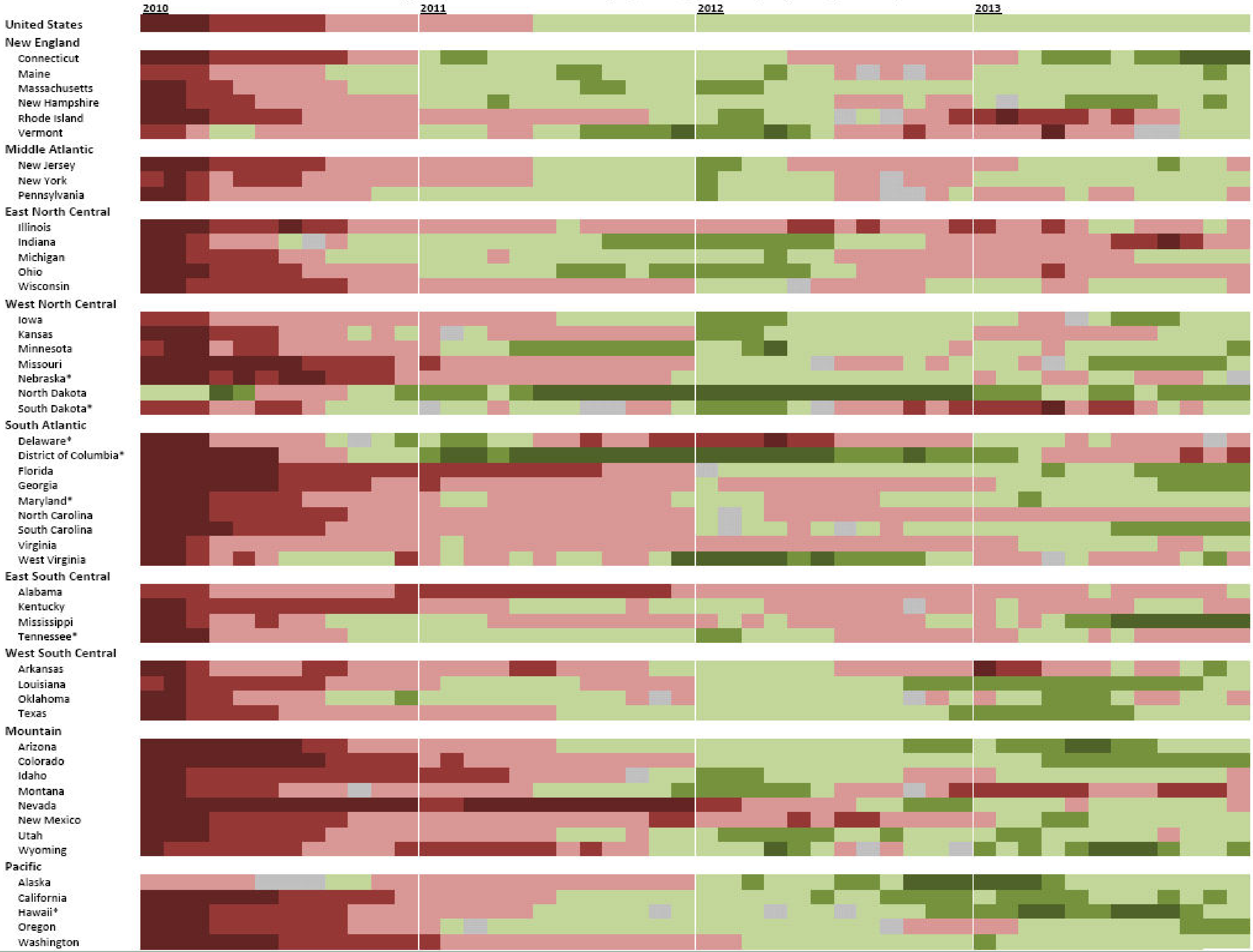
Construction employment, Dec. ’13 vs. peak

- US: construction -25% (-1.9 million) below Apr. ‘06 peak
- States: LA & ND at new peak in 2013, 45 states > 10% below
- Metros: only 21 of 339 at new Dec. peak, not seas. adjusted



Source: Author, from BLS national and state & area employment data (www.bls.gov/ces, www.bls.gov/sae)

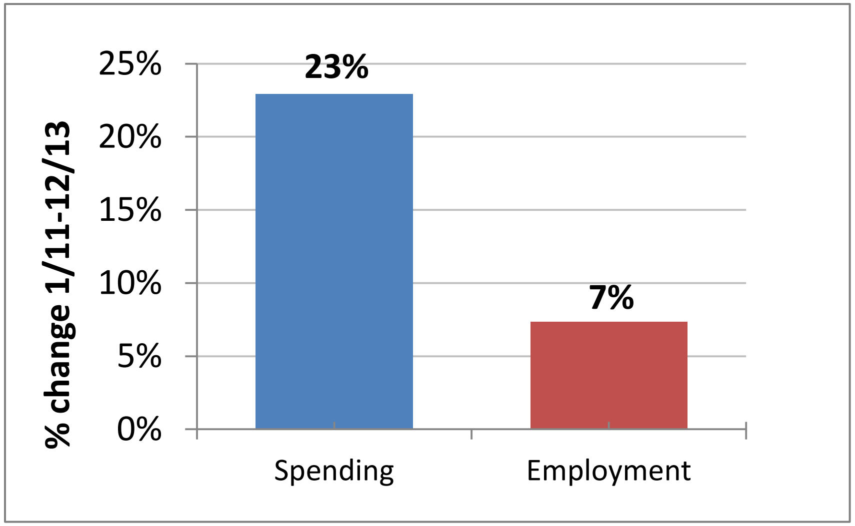
12-Month Percent Change in State Construction Employment (seasonally adjusted), January 2010-Dec. 2013

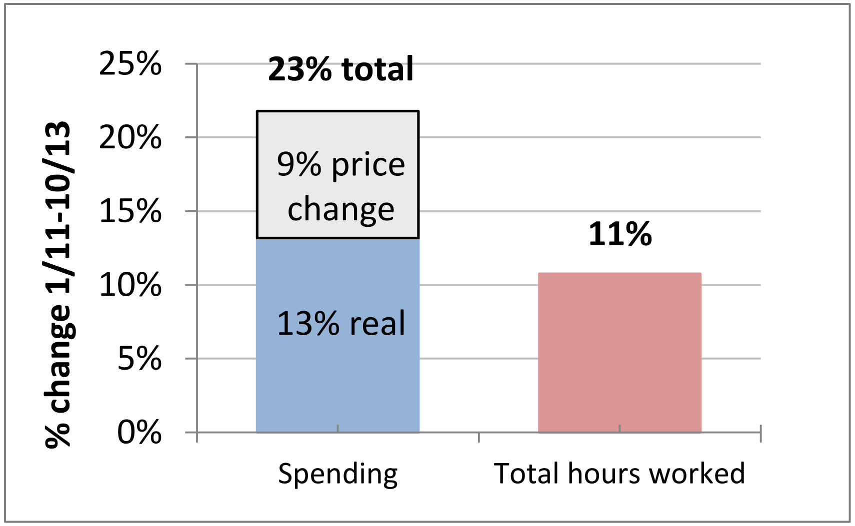


Construction spending, labor & prices, 1/11-12/13

Spending +23% but jobs only +7%. How do they do it?

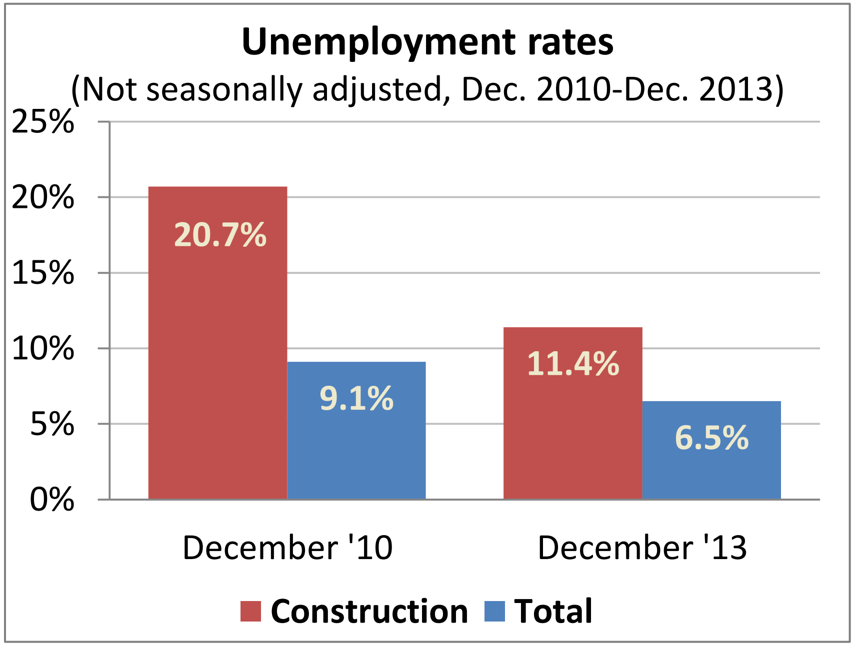
- Contractors charging slightly more: PPI +9% (industrial buildings)
- More hours per worker: aggregate hours +11% (+3% per employee)
- Implication: further spending growth will trigger bigger pickup in hiring—but will workers be available?

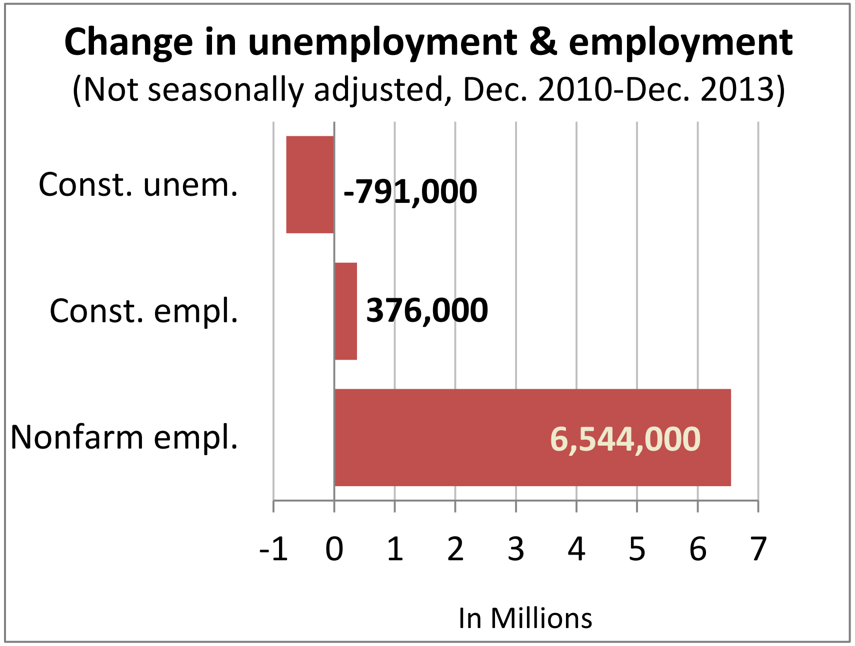




Construction vs. overall (un)employment, 12/10-12/13

- Construction unemployment fell sharply in past 3 years
- But industry employment has risen modestly
- Thus, workers are leaving for other sectors, school, retiring





Hardest positions to fill

(% of respondents who are having trouble filling)

Craft

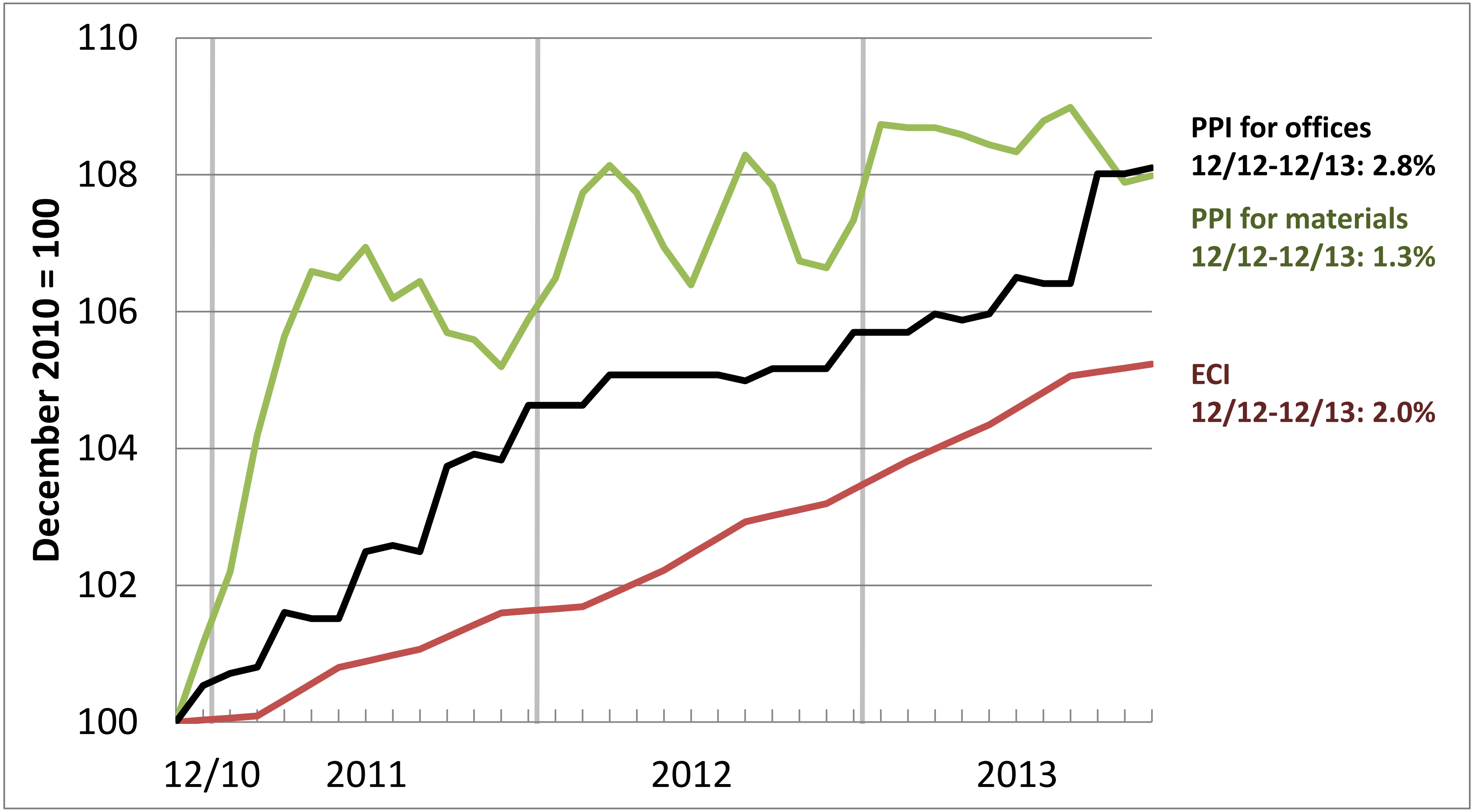
Equipment operators	49%
Carpenters	44
Laborers	37

Professional

Project managers/supervisors	49%
Estimators	41

Source: AGC Worker Shortage Survey, Aug. 2013

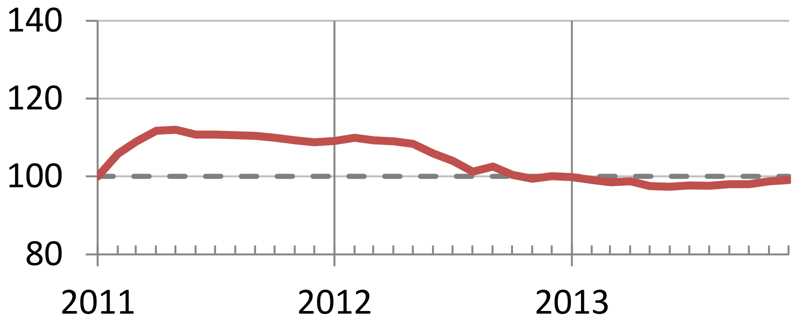
Material & labor costs vs. office bid prices since 12/10



Source: Author, based on Bureau of Labor Statistics for Producer Price Indexes (PPIs) and Employment Cost Index (ECI)

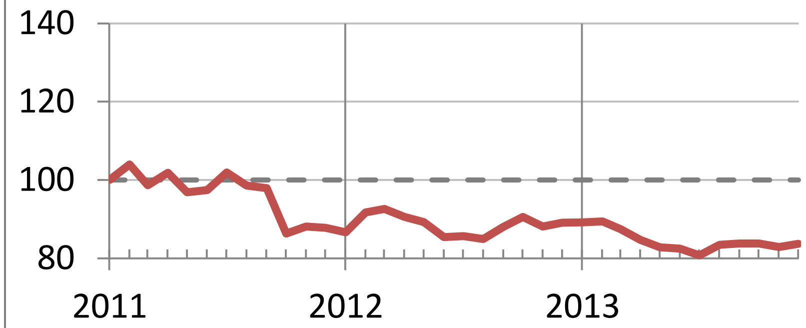
Producer price indexes for key inputs, 1/11-12/13 (Jan. 2011=100)

Steel mill products



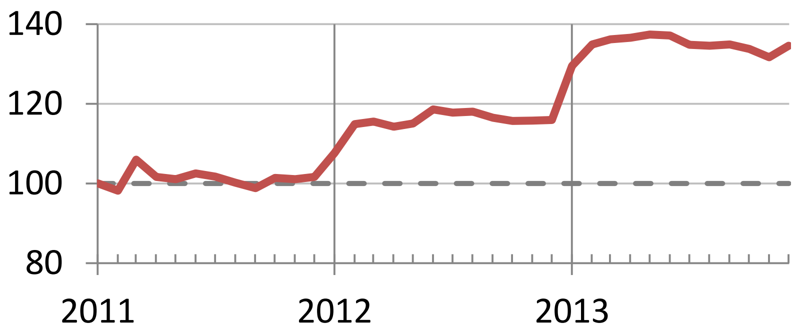
Latest 1-mo. change: 0.3%, 12-mo.: -1%

Copper & brass mill shapes



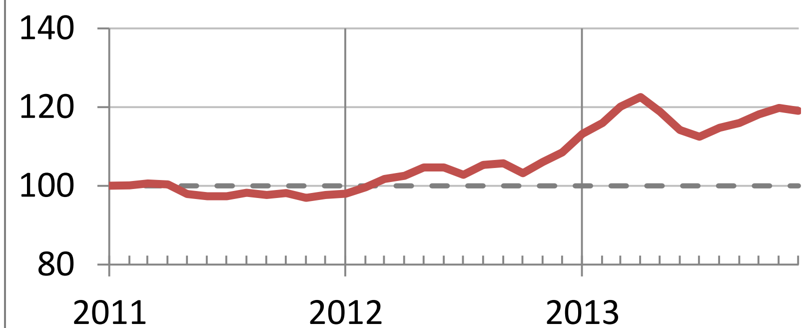
Latest 1-mo. change: 1.0%, 12-mo.: -6%

Gypsum products



Latest 1-mo. change: 2.2%, 12-mo.: 16%

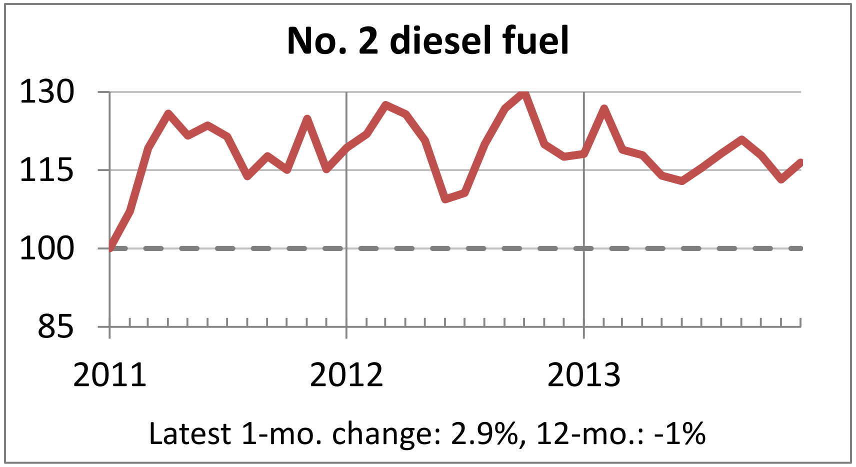
Lumber & plywood

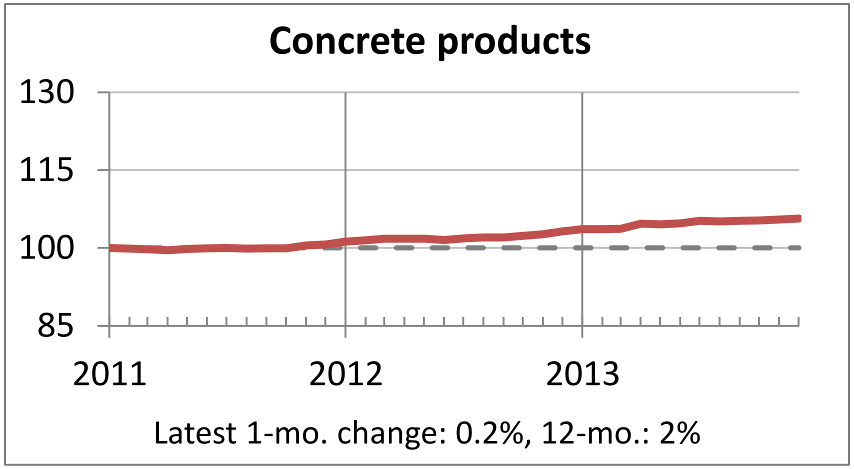


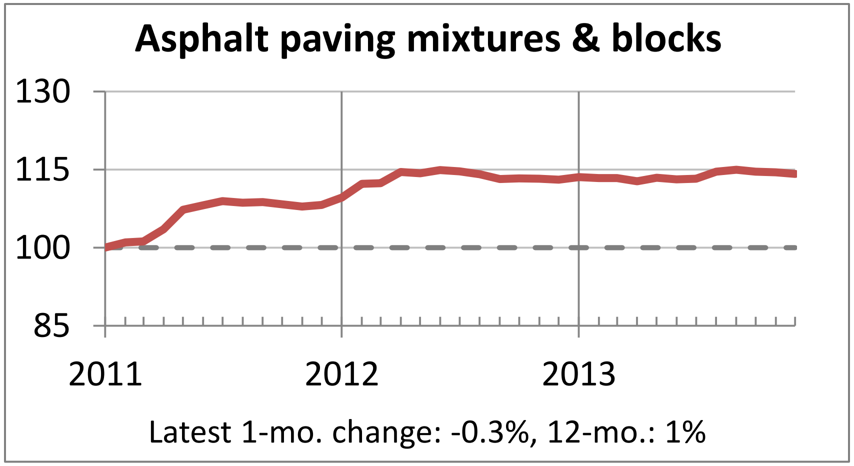
Latest 1-mo. change: -0.6%, 12-mo.: 10%

Source: Author, based on BLS producer price index reports

Producer price indexes for key inputs, 1/11-12/13 (Jan. 2011=100)







Source: Author, based on BLS producer price index reports

Best prospects for 2014

- Multifamily
- Manufacturing, esp. petrochemical, oil/gas supply
- Oil & gas fields
- Pipelines
- Warehouses
- Lodging (hotels & resorts)
- Rail

Source: Author

Trends: 2014-2017

- Total construction spending: +6% to +10% per year
  - less SF housing, retail; declining 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

Source: Author

Summary for 2013, 2014-17

	2012 actual	2013 actual	2014-17 ann. avg. forecast
Total spending	9%	5%	6-10%
Private – residential	15%	18%	1-10%
– nonresidential	16%	0%	1-10%
Public	-3%	-3%	0 or less
Materials PPI	1.4%	1.3%	1-3%; rare spikes
Employment cost index	1.6%	2.0%	2.5-5%

Source: 2012: Census, BLS; 2013-17: Author's ests.

AGC economic resources

(email simonsonk@agc.org)

- The Data DIGest: weekly 1-page email (subscribe at www.agc.org/datadigest)
- monthly press releases: spending; PPI; national, state, metro employment
- State and metro data, fact sheets
- Website: http://www.agc.org/Economics

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.

The Data DIGest is a weekly summary of economic news; items most relevant to construction are in italics.

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