November 4, 2021

U.S. & Washington Construction Outlook:

Pandemic Impacts, Policy Initiatives, Project Implications

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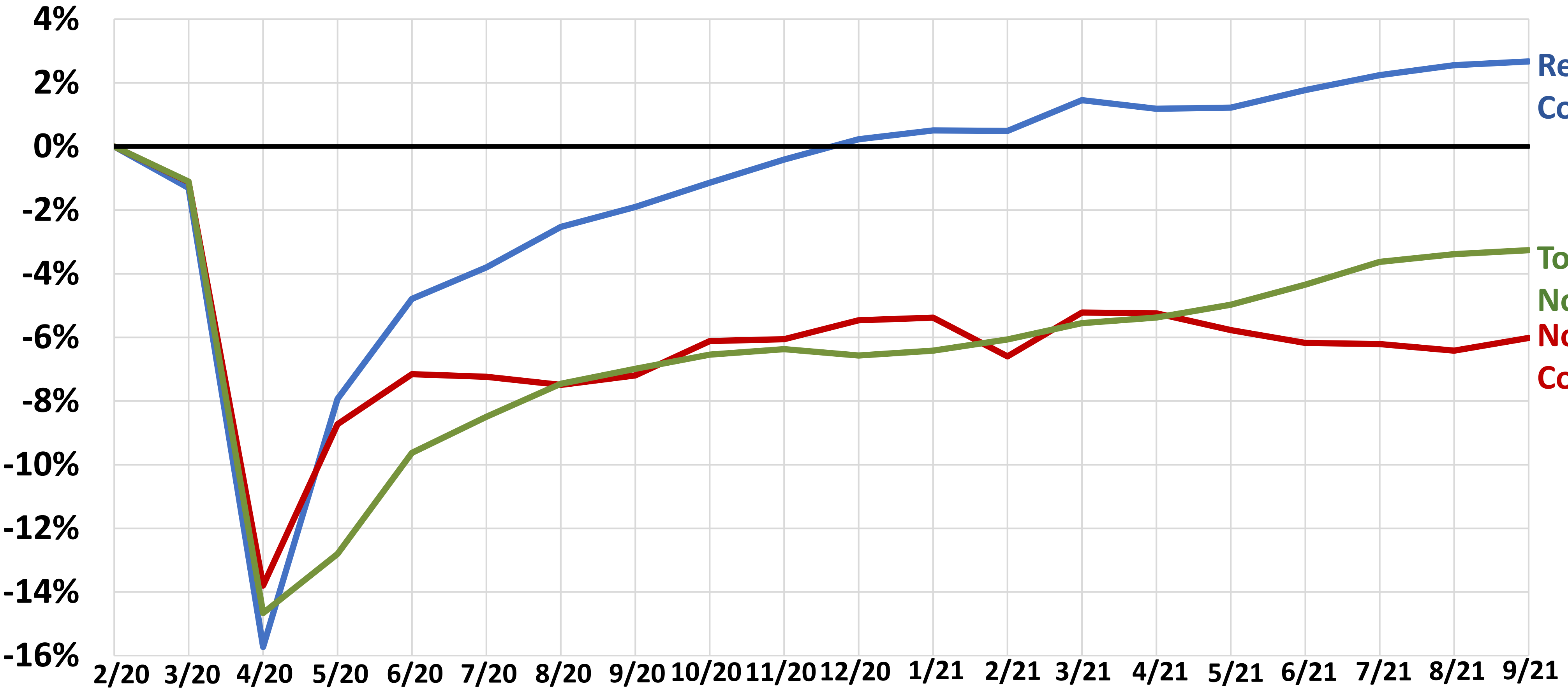
Total Nonfarm & Construction Employment, Feb. 2020-Sep. 2021

cumulative change (seasonally adjusted)



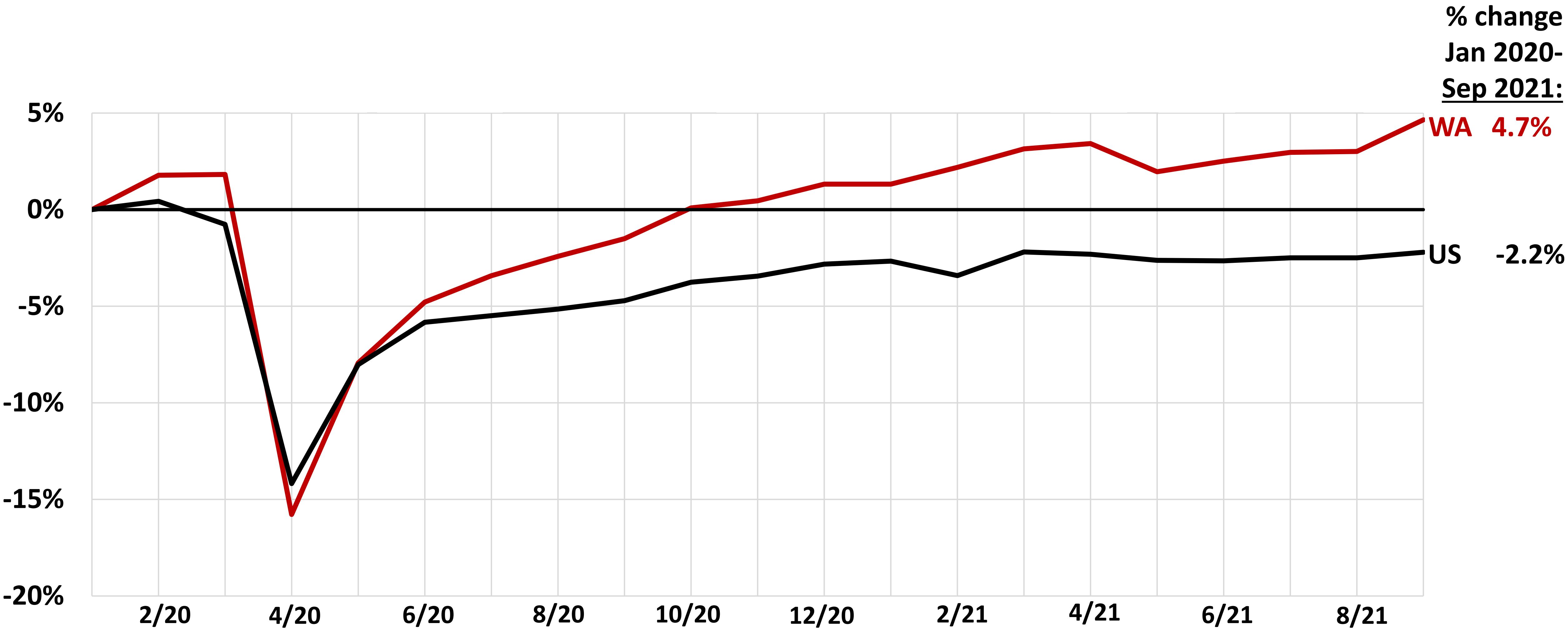
Change to 9/21 from:

	2/20	9/20
Residential Construction	2.7%	4.7%
Total Nonfarm	-3.3%	4.0%
Nonresidential Construction	-6.0%	1.3%

Source: BLS current employment statistics, https://www.bls.gov/ces/

US & WA Construction Employment

Cumulative change, Jan 2020-Sep 2021, seasonally adjusted



Source: BLS

State construction employment change, Feb. 2020-Sep. 2021

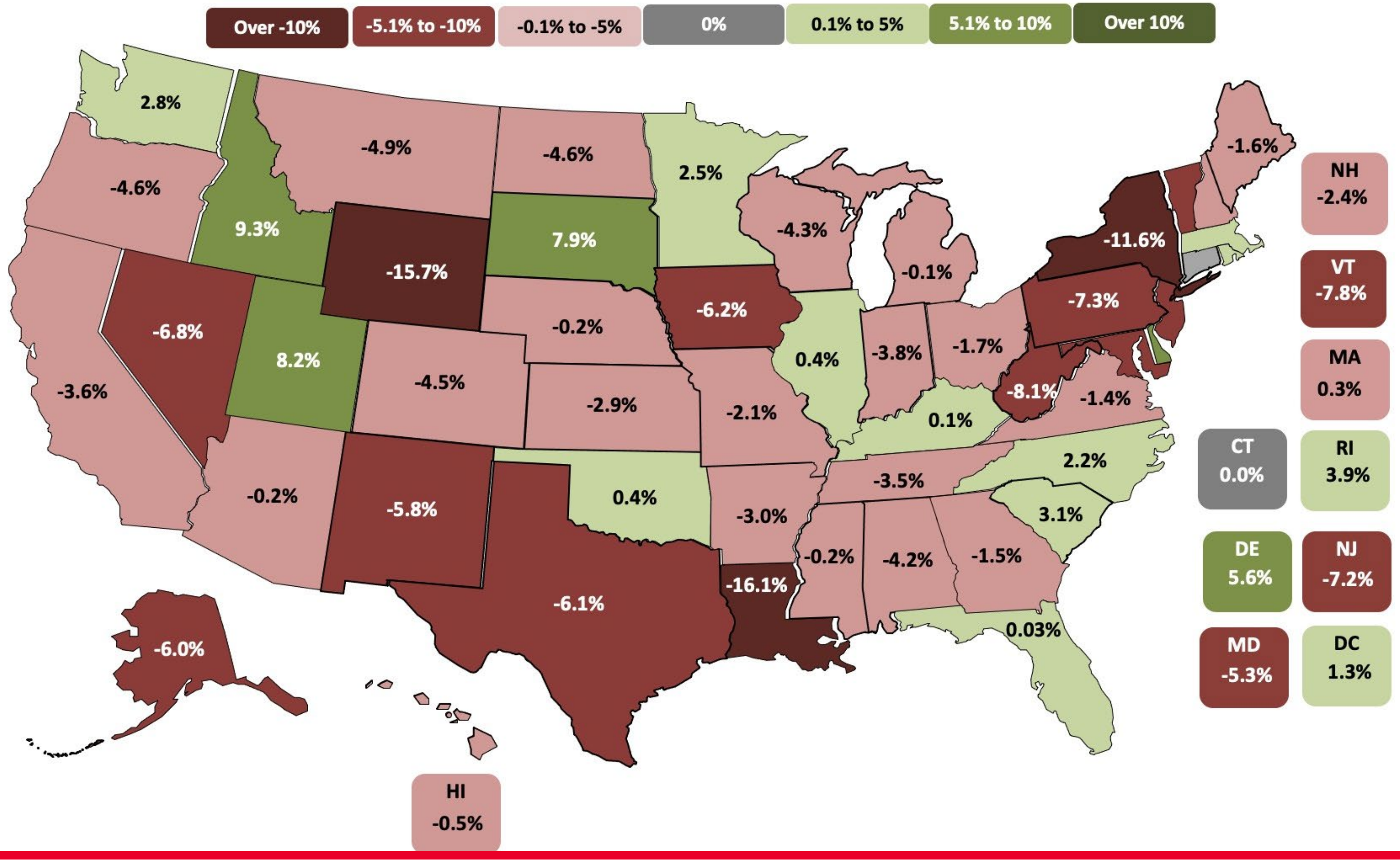
14 states and DC **up**, 1 state **flat**, 35 states **down** **(U.S.: -2.6%)**

Top 5

Idaho	9.3%
Utah	8.2%
South Dakota	7.9%
Delaware	5.6%
Rhode Island	3.9%

Bottom 5

Louisiana	-16.1%
Wyoming	-15.7%
New York	-11.6%
West Virginia	-8.1%
Vermont	-7.8%



Note: Shading based on unrounded numbers

Source: BLS state and area employment, www.bls.gov/sae

Metro construction employment change, Sep. 2020-Sep. 2021

258 metros **up**, 33 metros **unchanged**, 67 metros **down** **(U.S.: 2.8%)**

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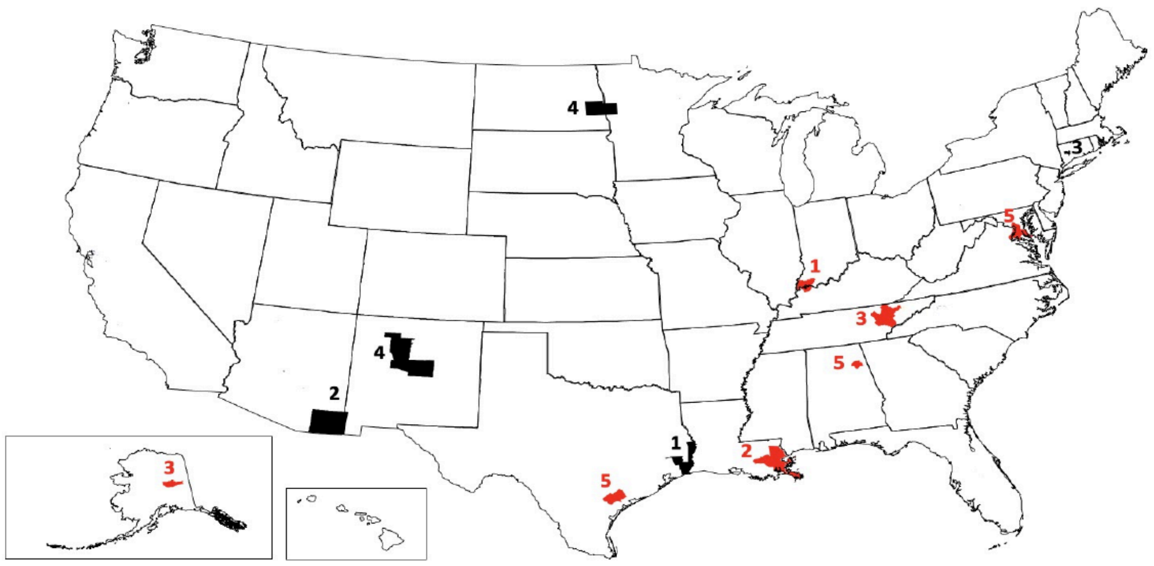
Metro Areas with Largest Percent Changes in Construction Employment, September 2020–September 2021



Top 5 Areas	12-month % change
1 Beaumont-Port Arthur, TX	20%
2 Sierra Vista-Douglas, AZ	19%
3 Waterbury, CT NECTA	17%
4 Albuquerque, NM	15%
4 Fargo, ND-MN	15%

Bottom 5 Areas	12-month % change
1 Evansville, IN-KY	-18%
2 New Orleans-Metairie, LA	-12%
3 Fairbanks, AK	-10%
3 Knoxville, TN	-10%
5 Gadsden, AL	-9%
5 Calvert-Charles-Prince George's, MD	-9%
5 Victoria, TX	-9%

Metro Areas with Largest Construction Employment Changes, September 2020–September 2021

Top 5 Areas	12-month gains
1 Sacramento--Roseville--Arden-Arcade, CA	9,000
2 Seattle-Bellevue-Everett, WA Div.	7,800
3 San Diego-Carlsbad, CA	7,600
4 Boston-Cambridge-Newton, MA NECTA Div.	6,700
4 Chicago-Naperville-Arlington Heights, IL Div.	6,700

Bottom 5 Areas	12-month losses
1 Nassau County-Suffolk County, NY Div.	-6,000
2 New York City, NY	-5,500
3 Calvert-Charles-Prince George's, MD	-3,100
3 New Orleans-Metairie, LA	-3,100
5 Baltimore-Columbia-Towson, MD	-2,400

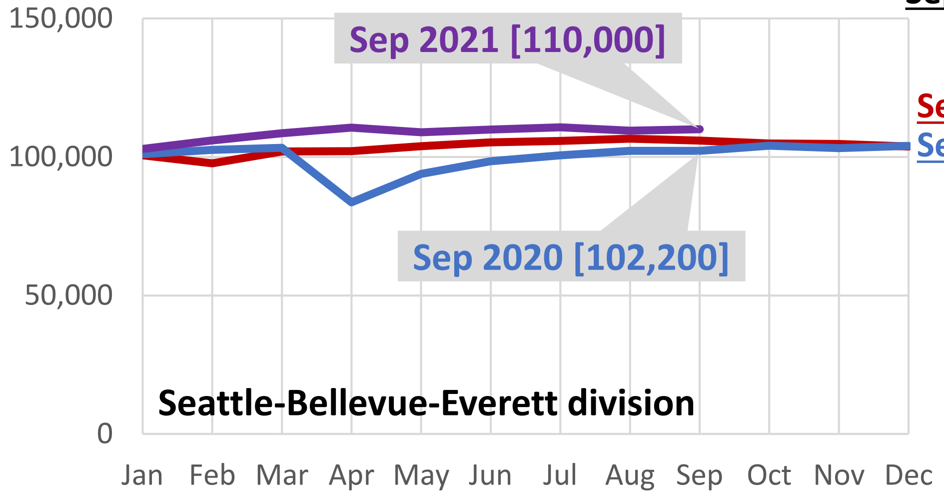
Note: Shading based on unrounded numbers

Source: BLS state and regional employment report

Washington Metro Area Construction Employment

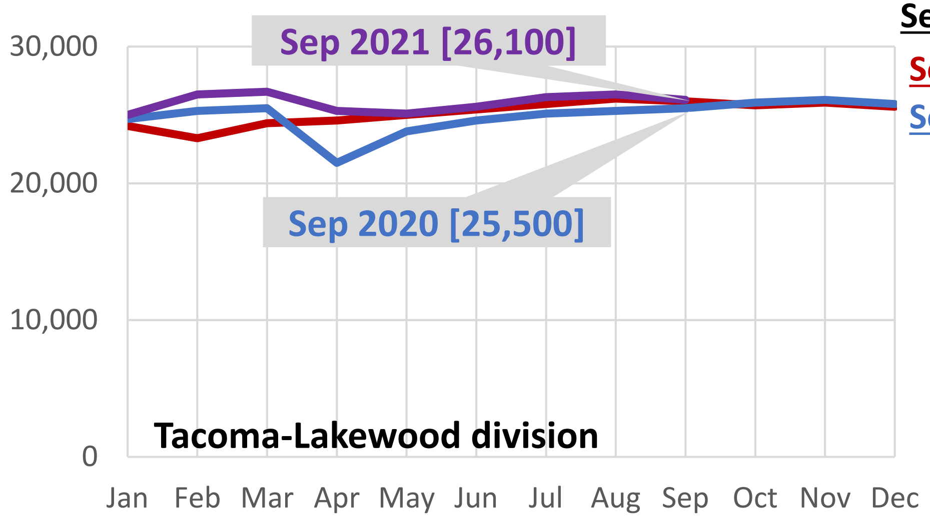
January 2019–September 2021, not seasonally adjusted

Sep 2021 change from:



Sep 2019: 4%

Sep 2020: 8%



Sep 2021 change from:

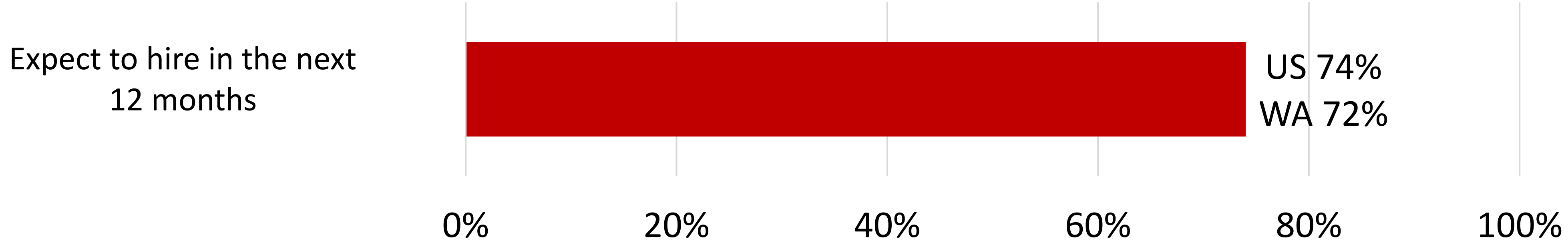
Sep 2019: 0%

Sep 2020: 2%

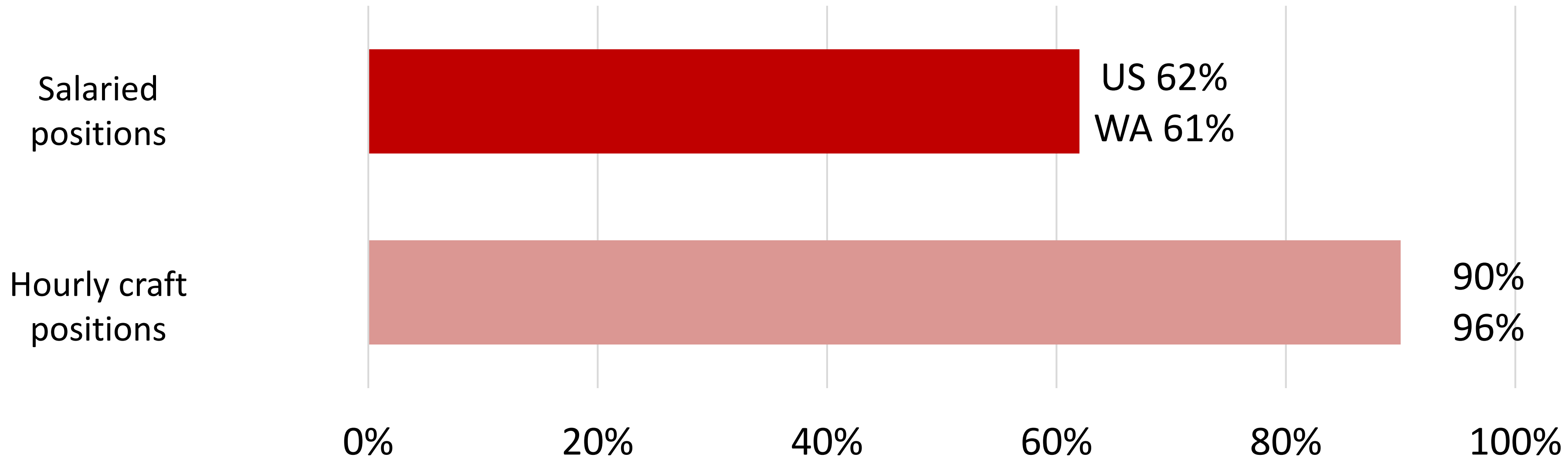
Source: BLS

2021 AGC Workforce Survey Results
(responses: US 2,136, WA 88)

Hiring expectation



Need to fill open positions



Source: 2021 AGC Workforce Development Survey

2021 AGC Workforce Survey Results

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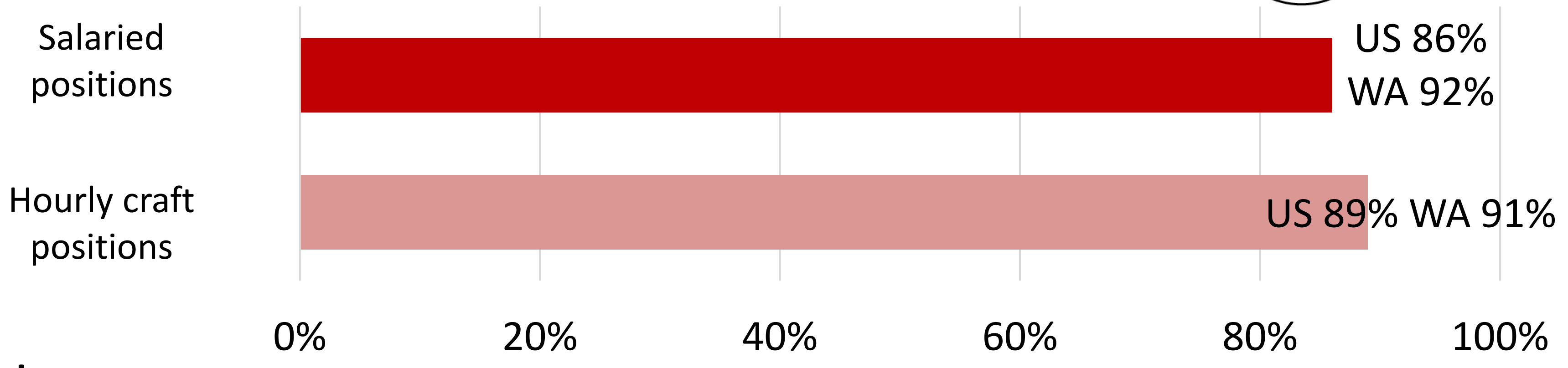
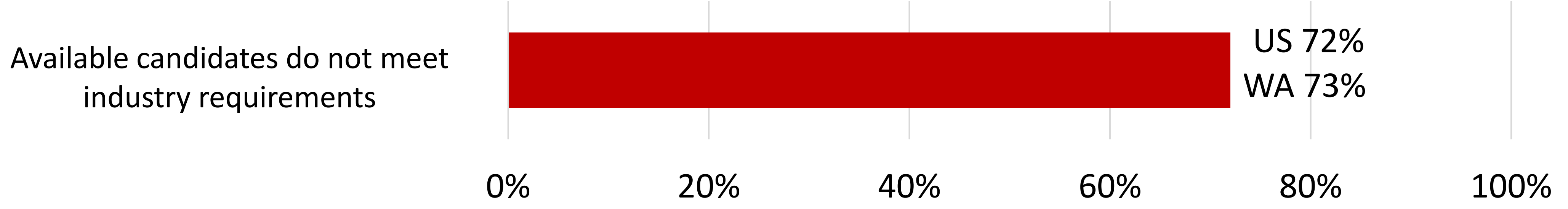
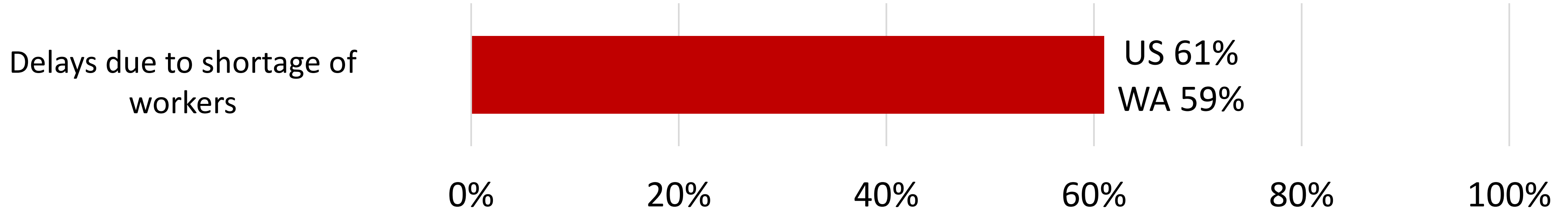
We are having a hard time filling some or all positions



Difficulty finding quality workers



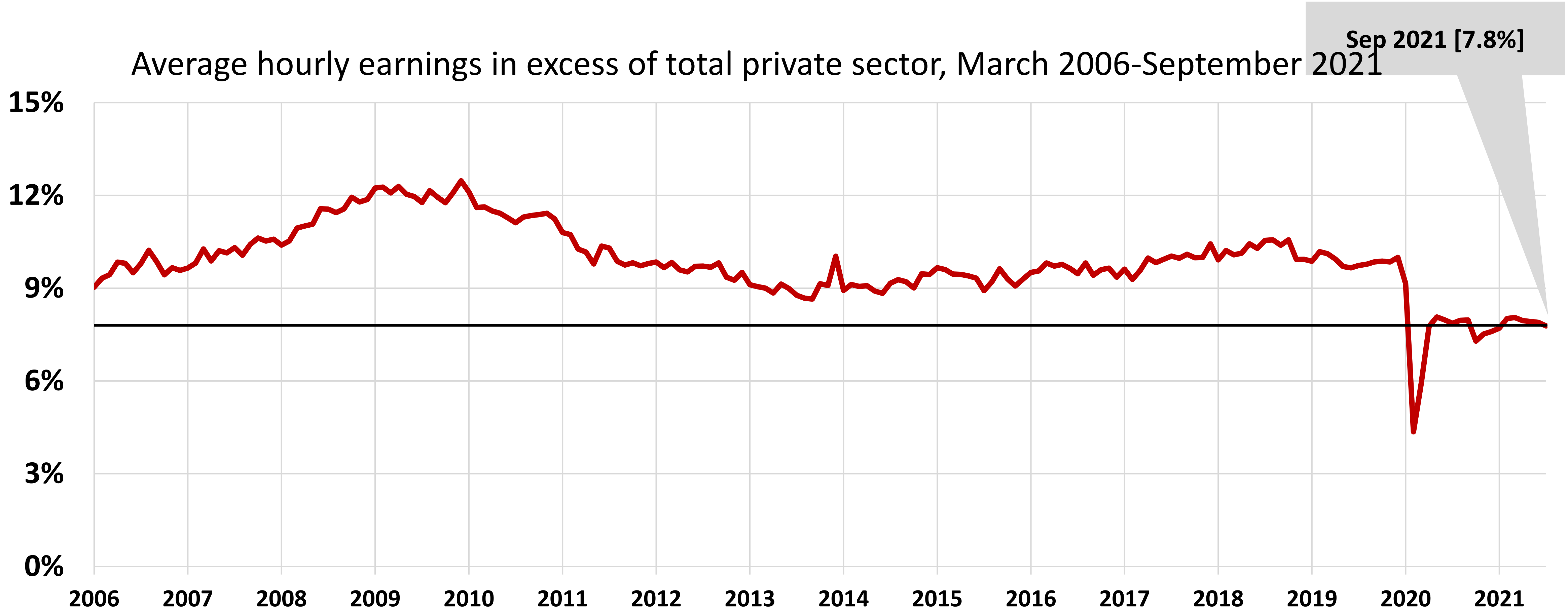
Construction delays



Source: 2021 AGC Workforce Development Survey

2 concerns about construction worker supply

- Low vaccination rate: 57% for construction workers, 81% for other occupations
- Shrinking “premium” for construction wages relative to total private sector



Year-to-date construction spending: Jan-Sep 2021 vs. Jan-Sep 2020

(not seasonally adjusted)

- Total 7%; private residential 25% (single-family 37%; multi 18%); private nonres -6%; public -6%

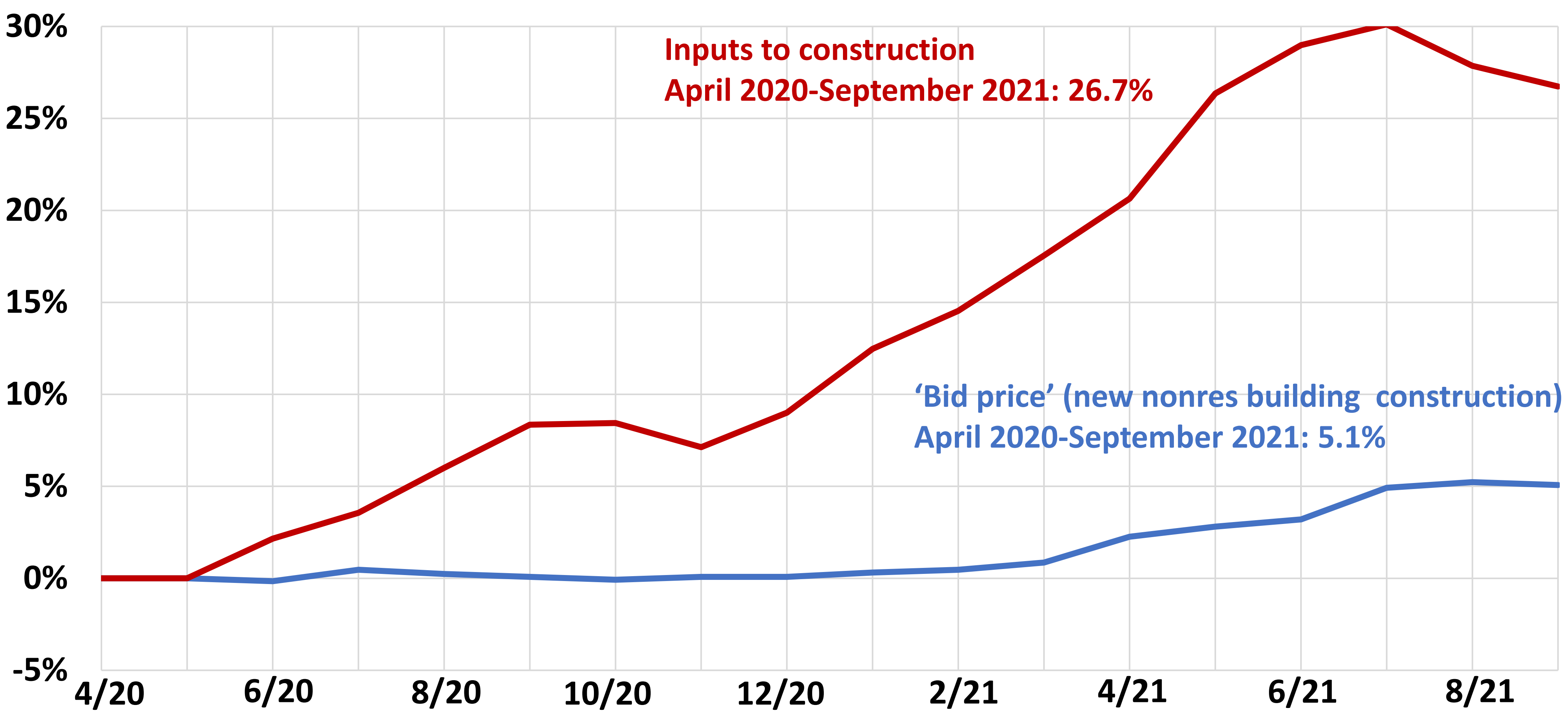
Largest segments (in descending order of 2021 year-to-date spending)

- Power -3% (electric -1%; oil/gas fields & pipelines -8%)
- Education -11% (primary/secondary -8%; higher ed -16%)
- Highway and street -1%
- Commercial 0% (warehouse 12%; retail -13%)
- Office -9%
- Mfg. -0.2% (chemical 6%; transp. equip. 2%; food/beverage/tobacco 20%; electronic/electric -16%)
- Transportation -6% (air -11%; freight rail/trucking -6%; mass transit 2%)
- Health care -1% (hospital 0.4%; medical building -4%; special care -3%)
- Lodging -32%

Source: Author

Construction input and 'bid price' producer price indexes (PPIs)

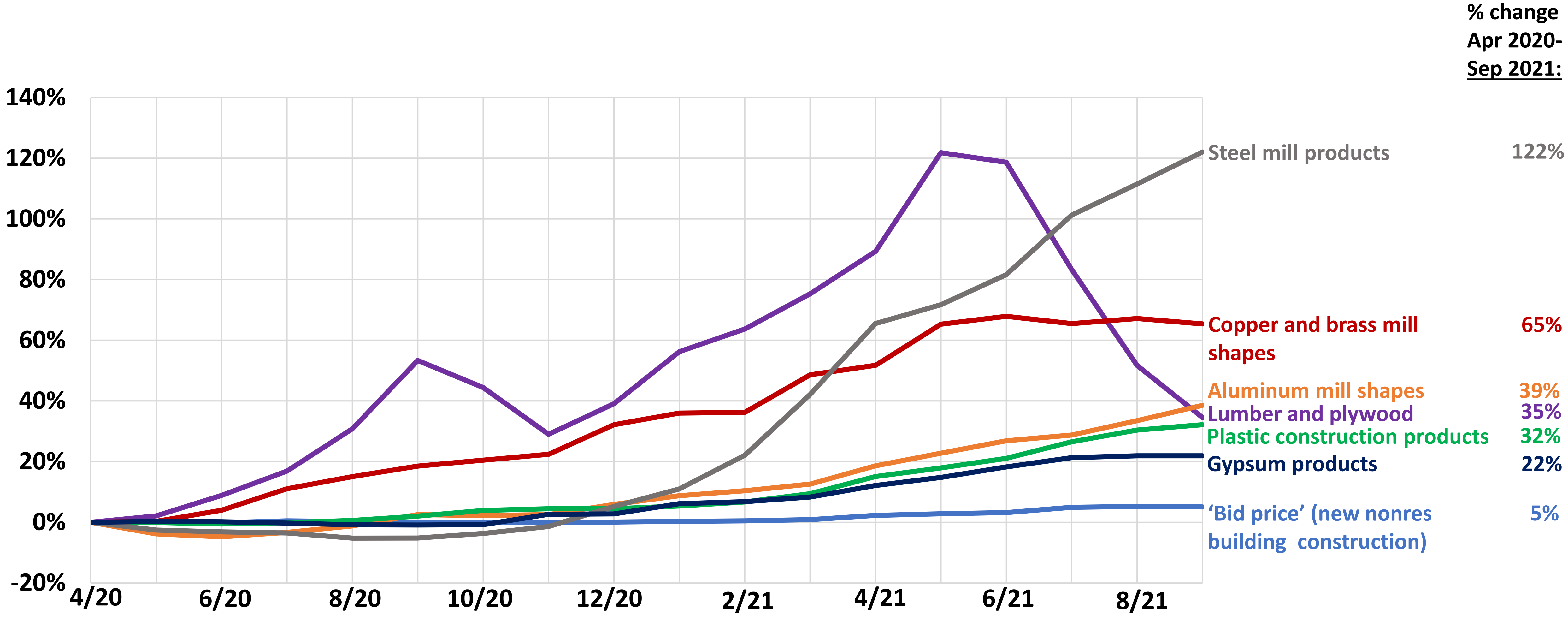
cumulative change in PPIs, April 2020 -September 2021 (not seasonally adjusted)



 Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

PPIs for construction and selected inputs

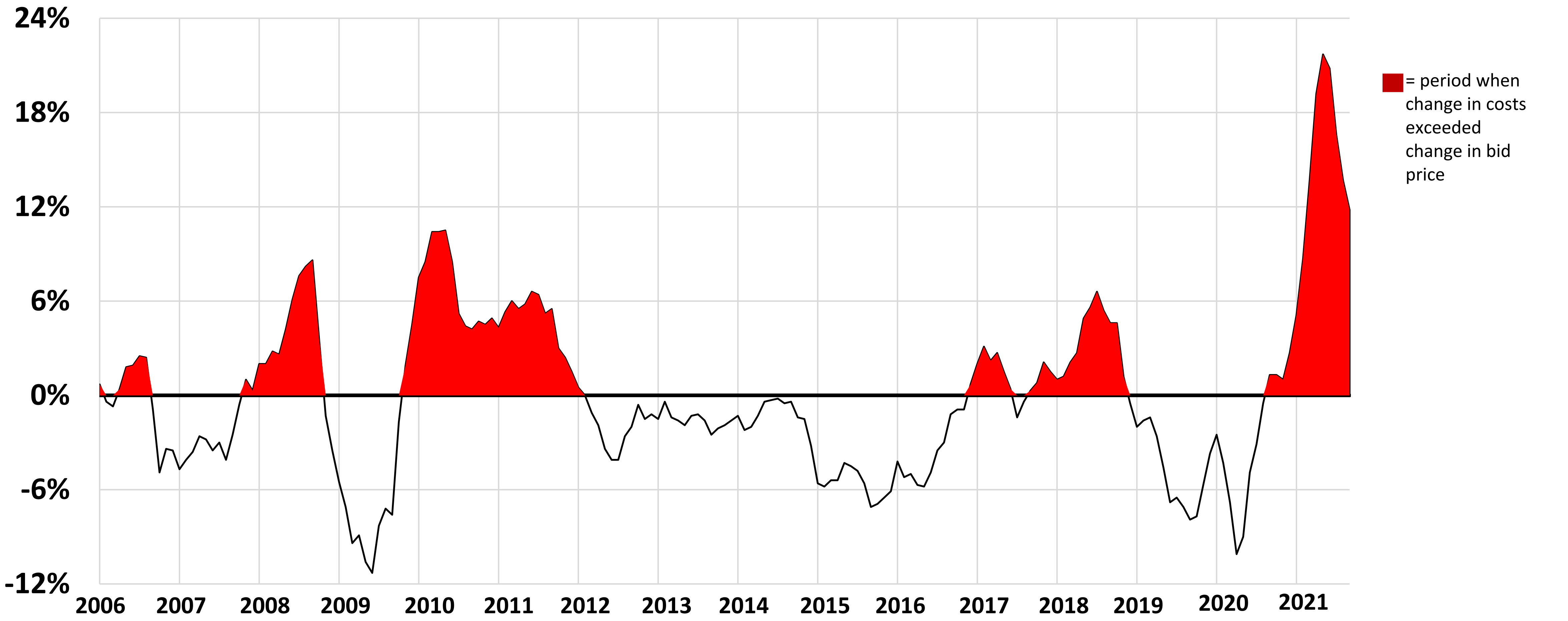
cumulative change in PPIs, April 2020 -September 2021 (not seasonally adjusted)



 Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

Cost squeeze on contractors can last two years or more

Difference between year-over-year change in materials costs vs. bid prices, Jan 2006-Sep 2021



Source: Source: Bureau of Labor Statistics, www.bls.gov/ppi, producer price indexes for goods inputs to nonresidential construction (material costs) and new warehouse construction (bid prices)

Medium-term impacts as recovery begins

- Economic recovery looks more certain but virus risks remain, especially for construction: low worker vaccination rate; possible pullback by owners on project starts
- Slower rebound than for other sectors as owners, investors/lenders, institutions, and public agencies face uncertainty about future demand, project costs, and completion times
- Continuing cost and supply challenges may lead to more project deferrals
- If the Senate-passed infrastructure bill becomes law, that will be a huge boost for transit funding but also private electric vehicles; mixed impact on transit demand
- Infrastructure funds will take time to distribute and award to individual projects, muting the medium-term impact on labor and materials supply
- Population movements within and between states may differ from recent past

Source: Author

Population change by state, July 2019–July 2020 **(U.S.: 0.35%)**

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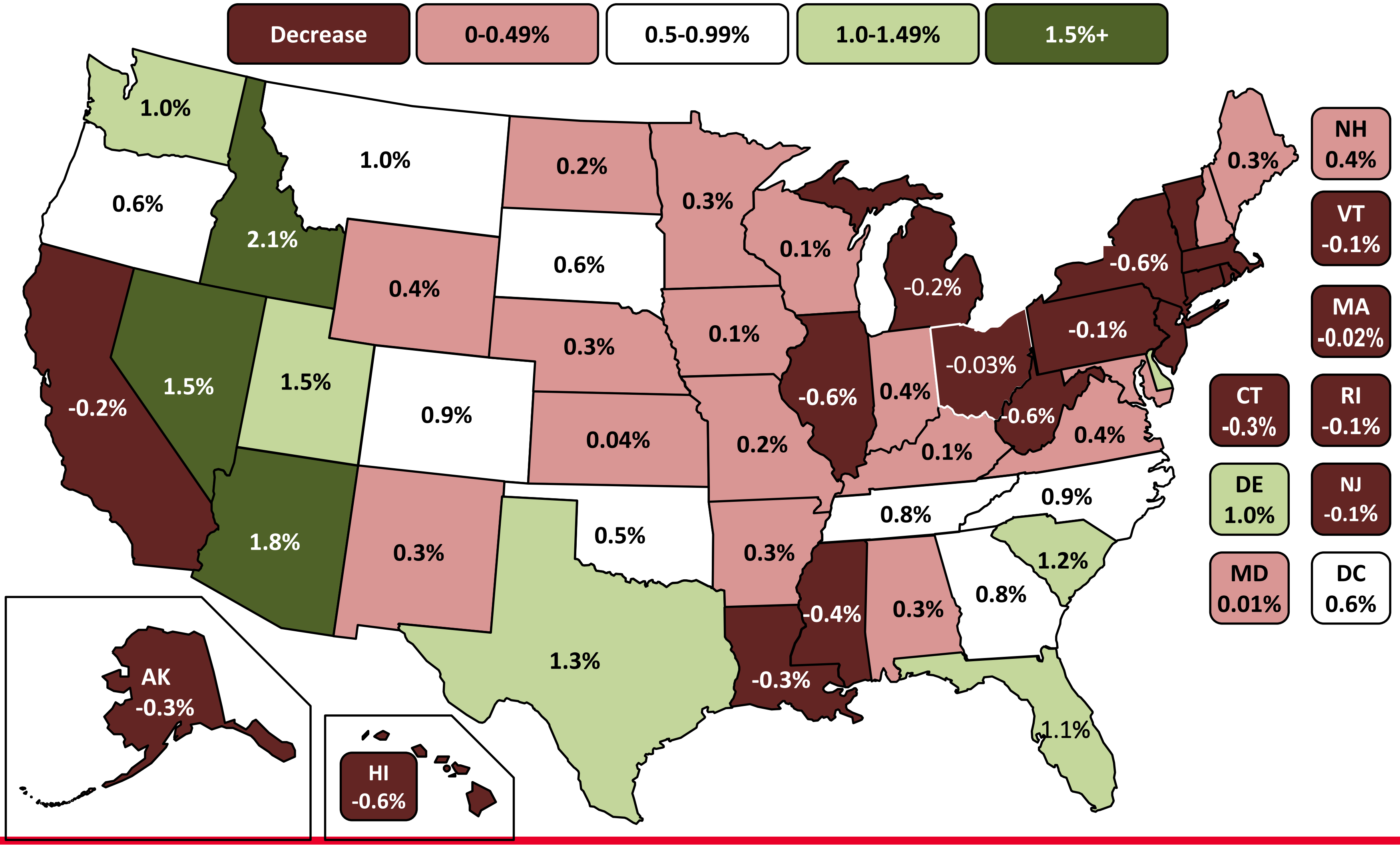
Top 5

ID	2.1%
AZ	1.8%
NV	1.5%
UT	1.5%
TX	1.3%

Bottom 5

NY	-0.6%
IL	-0.6%
HI	-0.6%
WV	-0.6%
MS	-0.4%



Source: U.S. Census Bureau, Dec. 2020 estimates, www.census.gov/popest

Conclusions

- Nonresidential construction spending and employment are likely to start increasing in 2022
- But the sector faces continuing challenges from volatile prices, supply-chain bottlenecks, competition for labor
- Owners such as transit agencies should expect higher (and possibly fewer) bids as contractors try to pass on materials and labor cost increases
- Owners can cushion the shock with price adjustment clauses, earlier buying of materials, flexibility about materials and design changes
- Too early to say how mix of core city/fringe/non-metro growth will change, but overall population growth is slowing

Source: Author

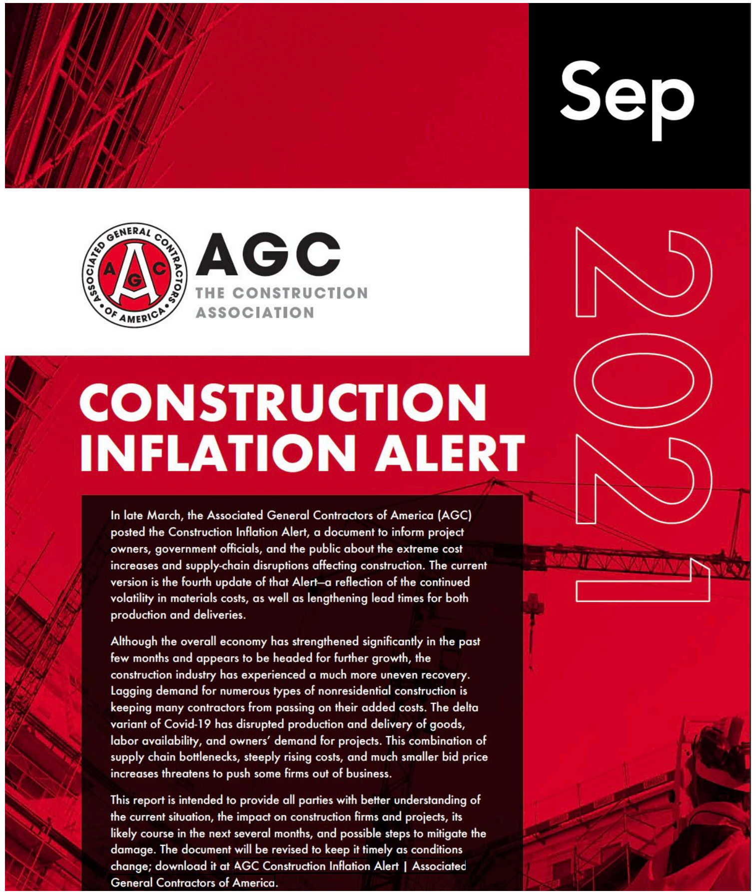
AGC economic resources

(email ken.simonson@agc.org)

- *The Data DIGest*: weekly 1-page email (subscribe at http://store.agc.org)
- *Construction Inflation* Alert:

https://www.agc.org/learn/construction-data/agc-construction-inflation-alert

- ConsensusDocs Price Escalation Resource Center: https://www.consensusdocs.org/price-escalation-clause/
- Autodesk-AGC of America Workforce Survey results
- State and metro data, fact sheets: www.agc.org/learn/construction-data
- Monthly press releases: construction spending; producer price indexes; national, state, metro employment with rankings



 Source: Author