



COGENCE Alliance

Owners + Architects + Engineers + Contractors

Inspire. Educate. Unite.



Mission + Purpose

Cogence *(Latin)*

“To drive together” or “Thinking that is well organized”

The purpose of the Alliance is to bring Owners and Developers, Architects and Engineers, Construction Managers and Contractors, and Allied Industry Professionals together to **advocate** and be a **resource** for improved project delivery.

For more information visit us at www.cogence.org

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September Summit

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September Summit



Save the date coming soon!!

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Agenda

- Introduction
- Construction Data from AGC
- Presentation – Michael Mammone
- Panel Discussion
- Plus / Delta



**The old world is dying.
The new world is struggling to be born.
Now is the time of monsters.**



February 2022

U.S. Construction Outlook: Workforce Worries, Project Prospects, Supply Snags

Ken Simonson

Chief Economist, AGC of America

ken.simonson@agc.org



Total Nonfarm & Construction Employment, Feb. 2020–Jan. 2022

cumulative change (seasonally adjusted)



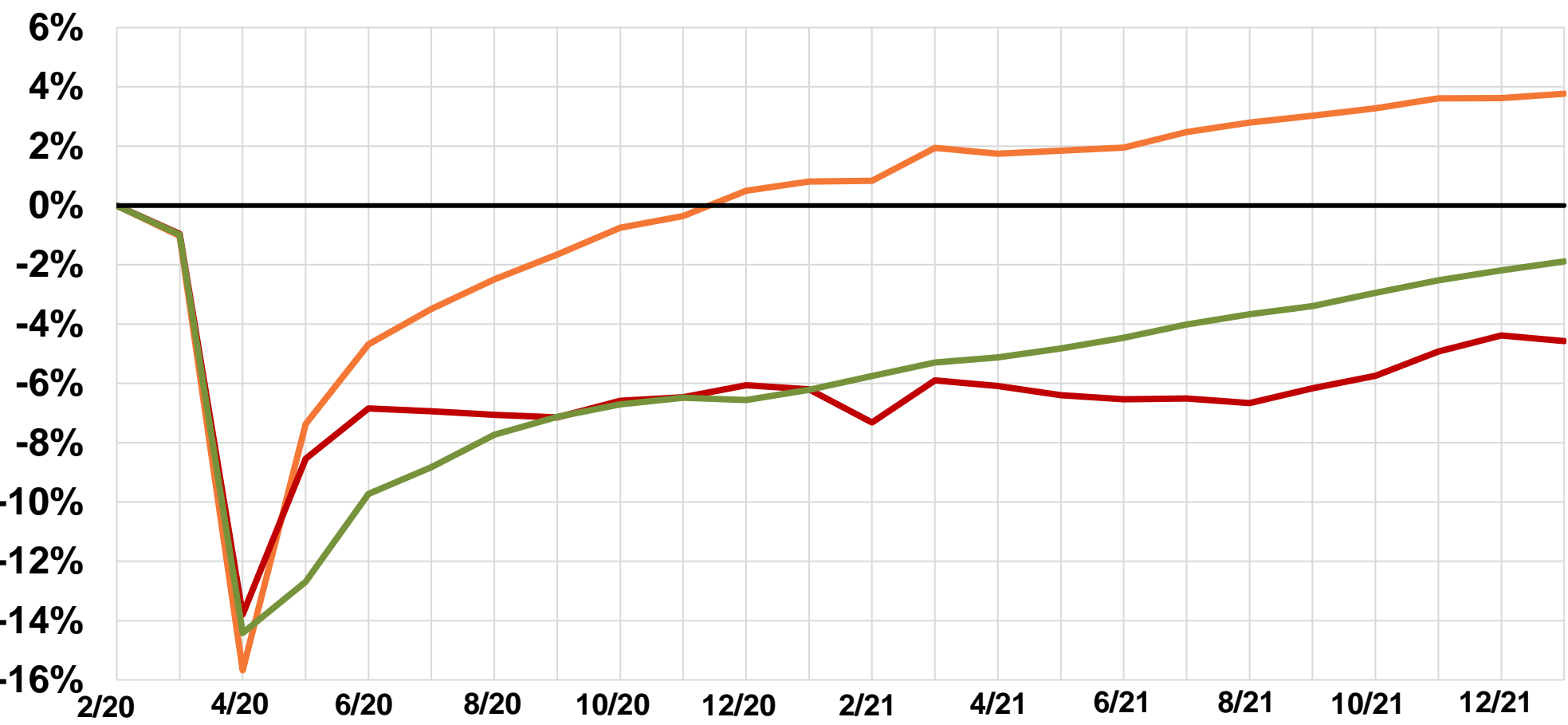
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Change to 1/22

from: 2/20 1/21

Residential Construction **3.8%** **2.9%**

Total Nonfarm **-1.9%** **4.6%**
Nonresidential Construction **-4.6%** **1.7%**



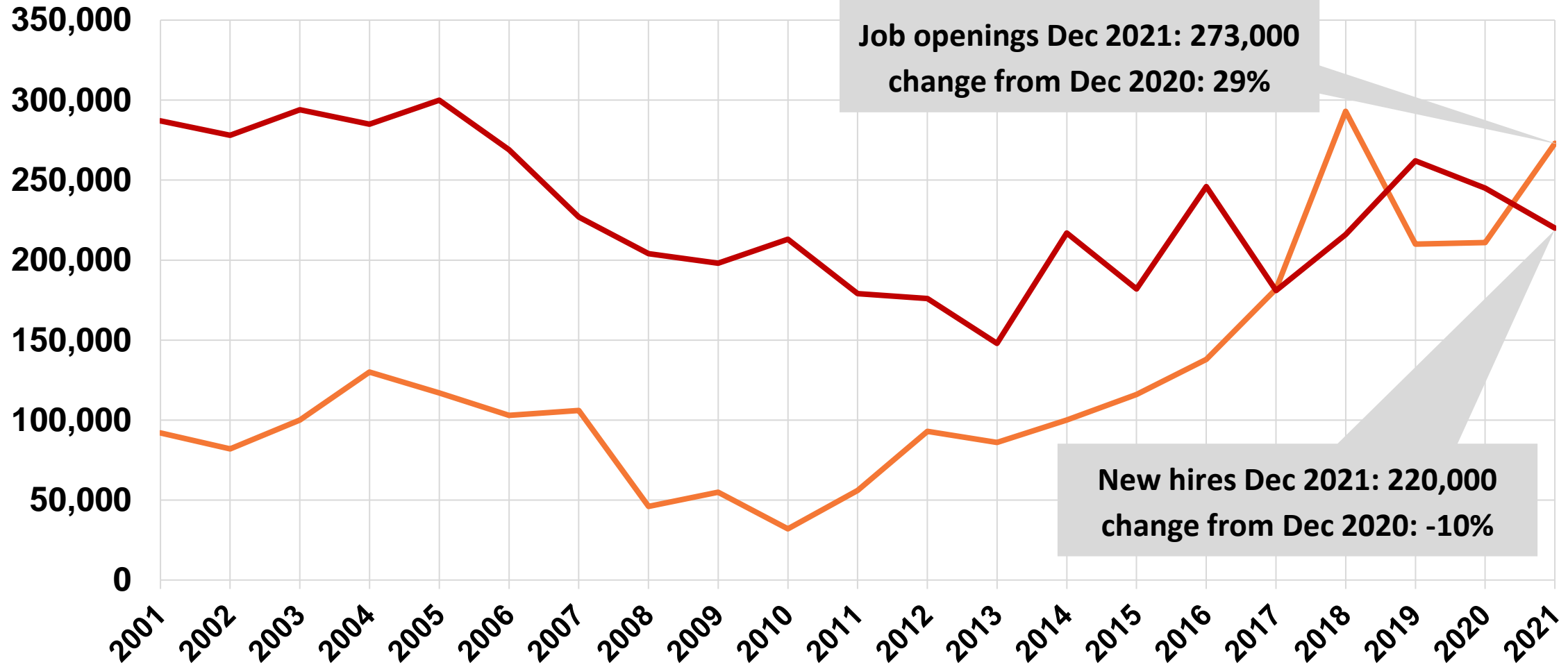


Construction job openings and hires

Dec 2001-Dec 2021, not seasonally adjusted



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State construction employment change, Feb. 2020–December 2021

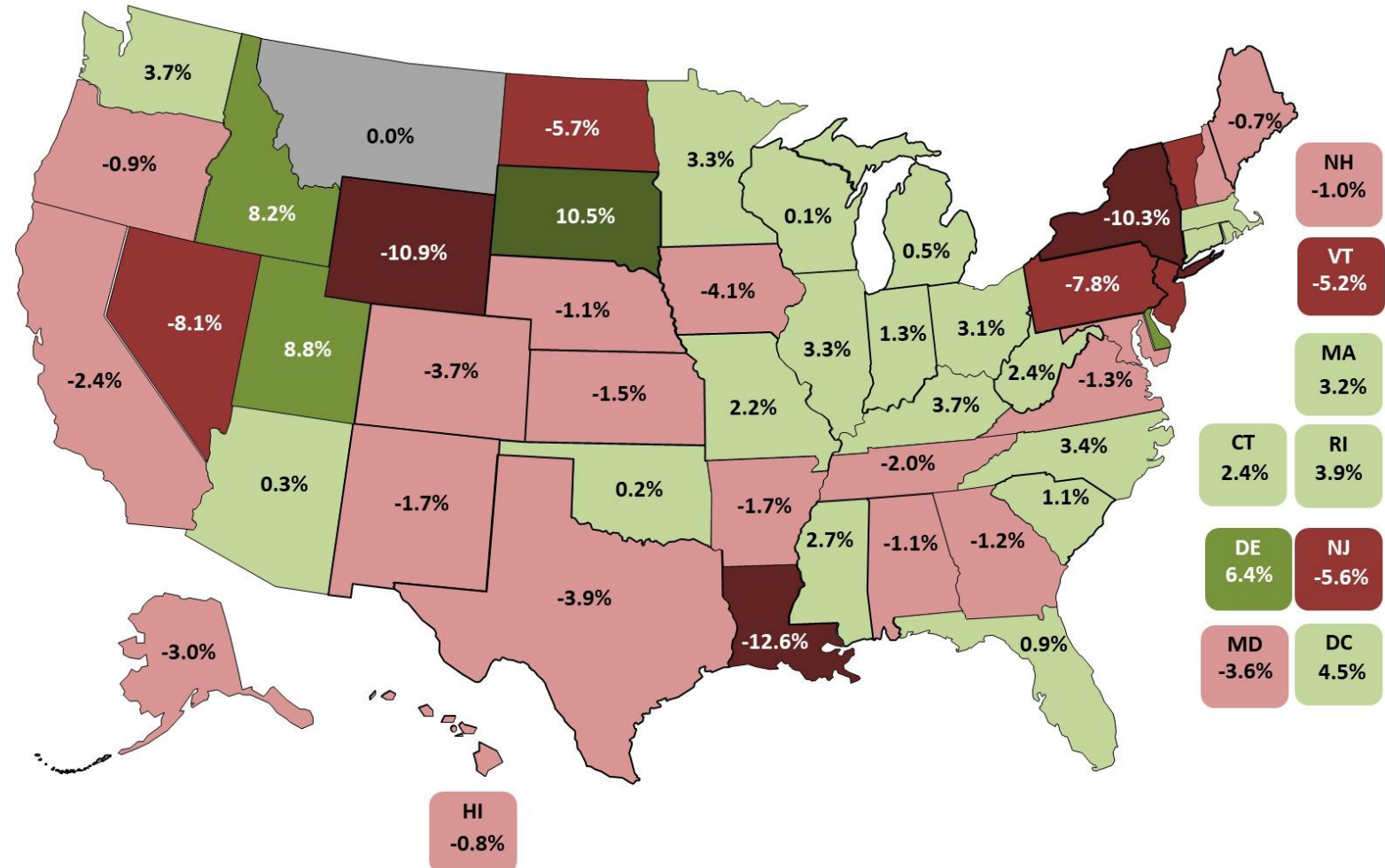
23 states and DC **up**, 1 state **flat**, 26 states **down** (U.S.: -1.3%)



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Top 5	
South Dakota	10.5%
Utah	8.8%
Idaho	8.2%
Delaware	6.4%
District of Columbia	4.5%
Bottom 5	
Louisiana	-12.6%
Wyoming	-10.9%
New York	-10.3%
Nevada	-8.1%
Pennsylvania	-7.8%

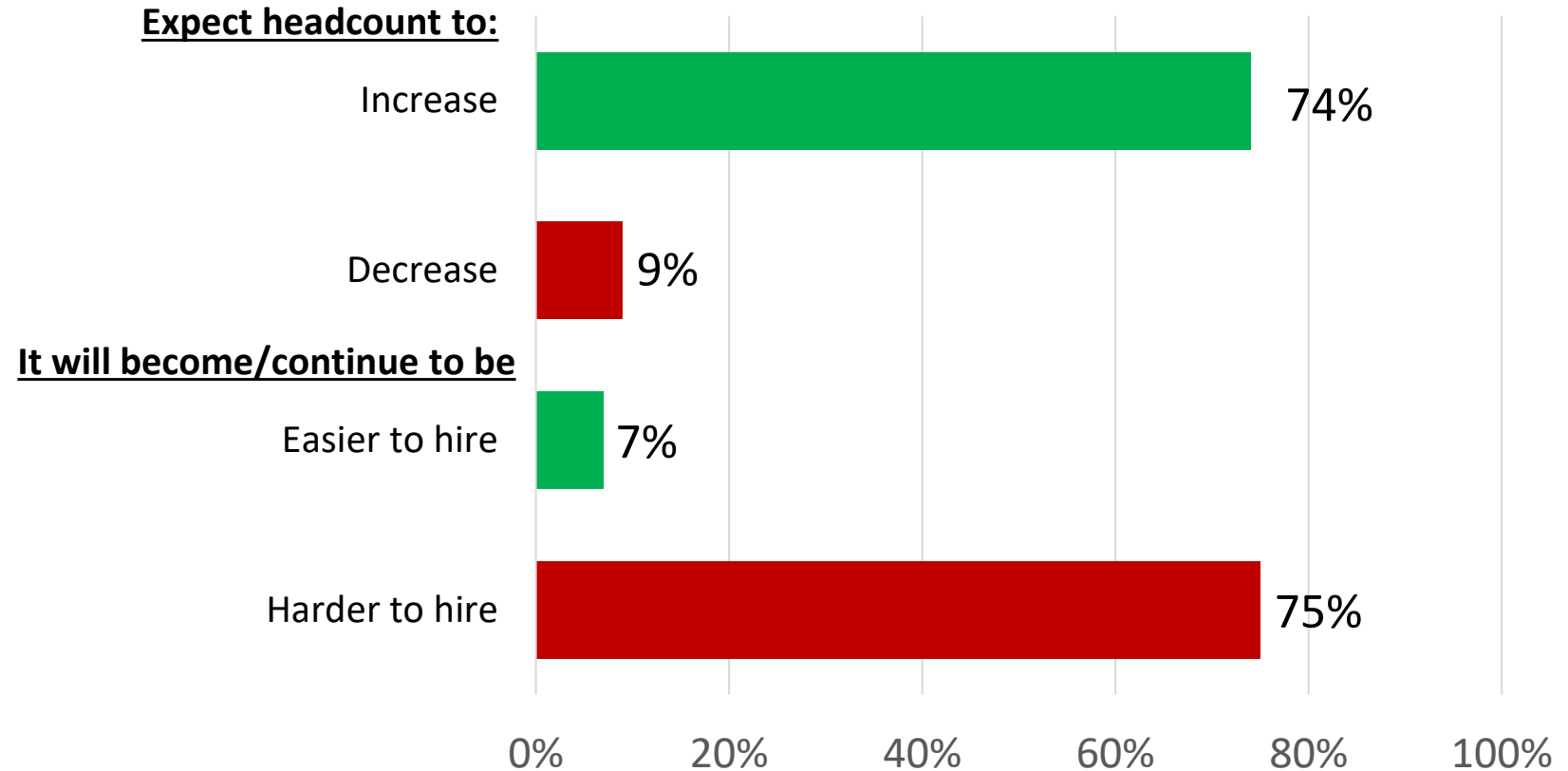




2022 AGC Hiring & Outlook Survey: Firms' expectations regarding headcount and hiring over next 12 months



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Construction spending: 2021 totals vs. 2020



- Total 8%; private residential 23% (single-family 33%; multi 16%); private nonres -2%; public -4%
- Largest segments (in descending order of 2021 spending)
- Power -0.1% (electric 1%; oil/gas fields & pipelines -5%)
 - Highway and street 0.3%
 - Education -9% (primary/secondary -7%; higher ed -14%)
 - Commercial 4% (warehouse 16%; retail -8%)
 - Office -6%
 - Mfg. 9% (chemical 7%; computer/electronic 27%; transp. equip. -0.5%; food/beverage/tobacco 31%)
 - Transportation -6% (air -10%; freight rail/trucking -6%; mass transit -0.7%)
 - Health care 2% (hospital 5%; medical building 0.8%; special care -6%)
 - Lodging -32%

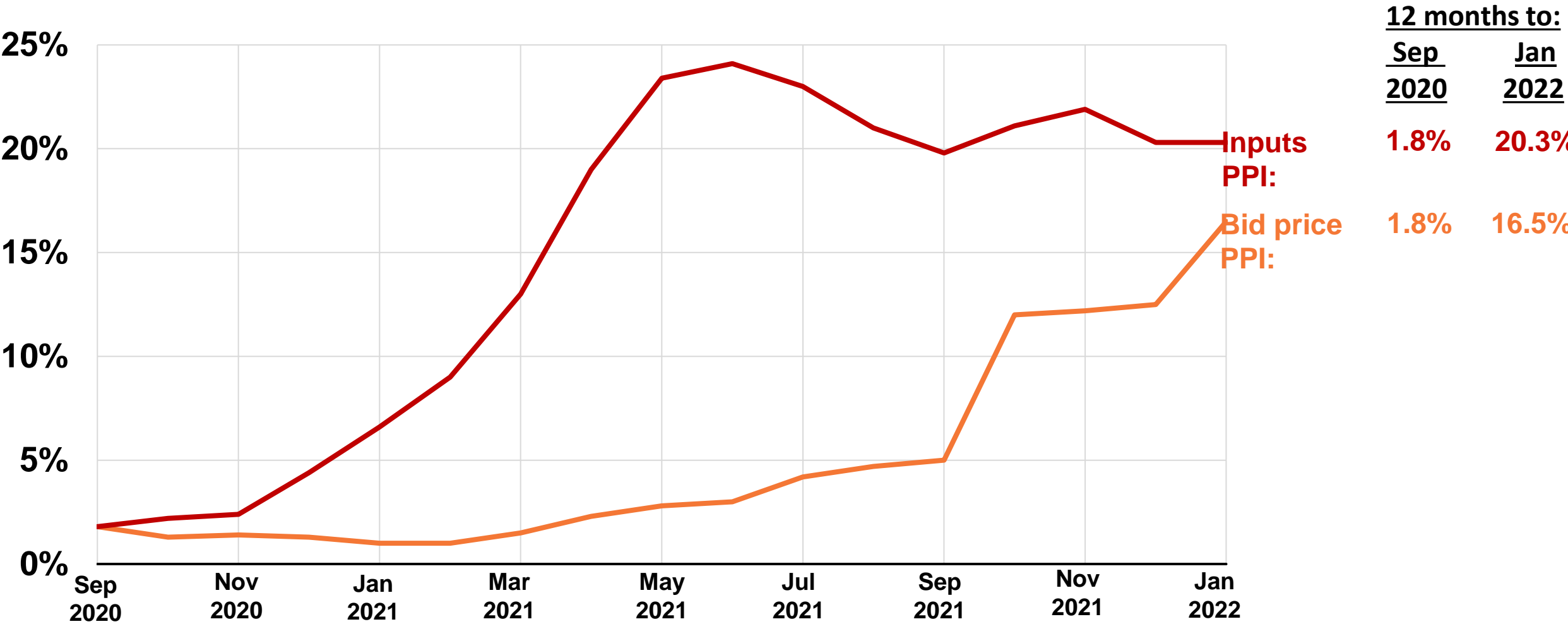


Change in prices for inputs to new nonresidential construction

Year-over-year change in PPIs, Sep 2020 – Jan 2022, not seasonally adjusted



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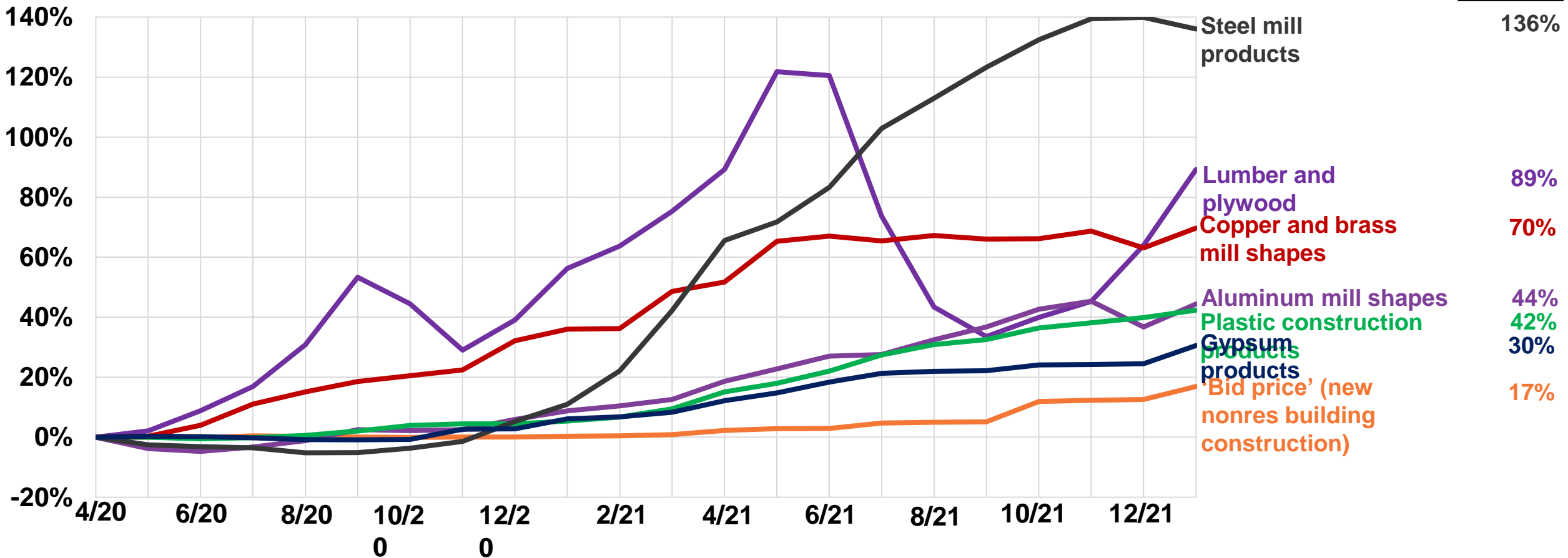
PPIs for construction bid prices and selected inputs

cumulative change in PPIs, April 2020 – January 2022 (not seasonally adjusted)

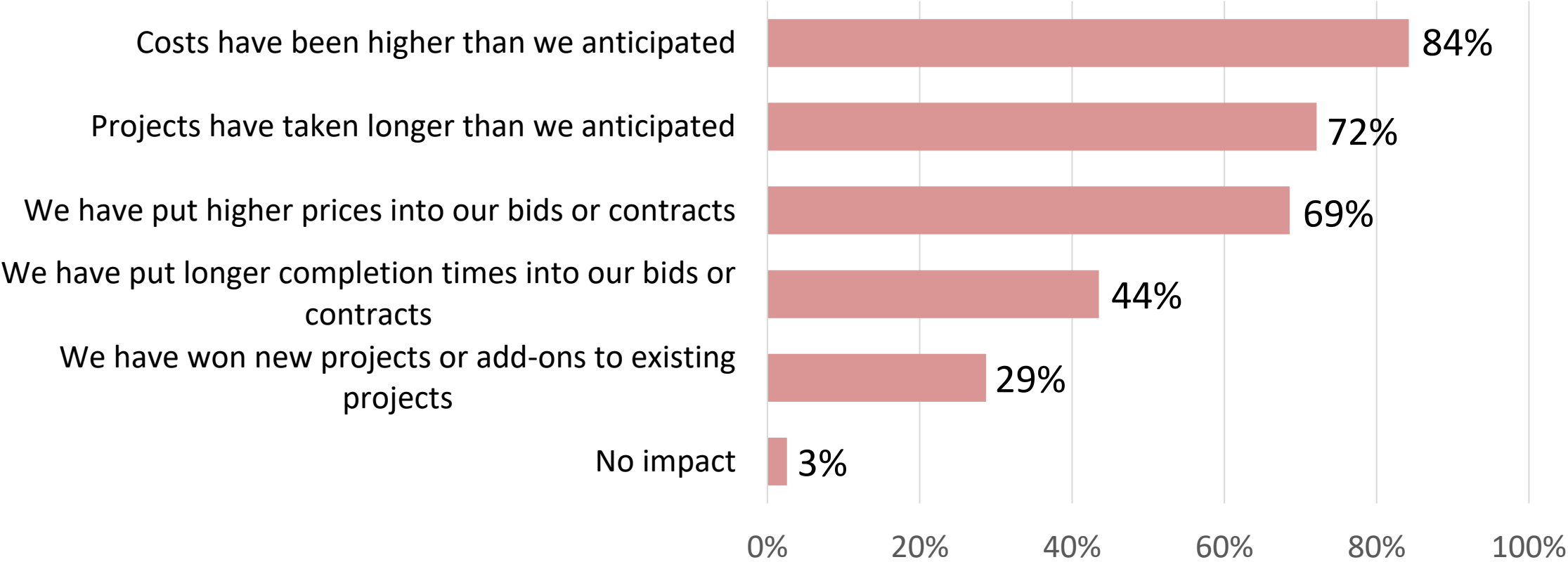


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% change
Apr 2020-
Jan 2022:
136%



AGC 2022 Outlook Survey: Firms cite pandemic impact as cause for higher cost and delays



Cost squeeze on contractors can last two years or more



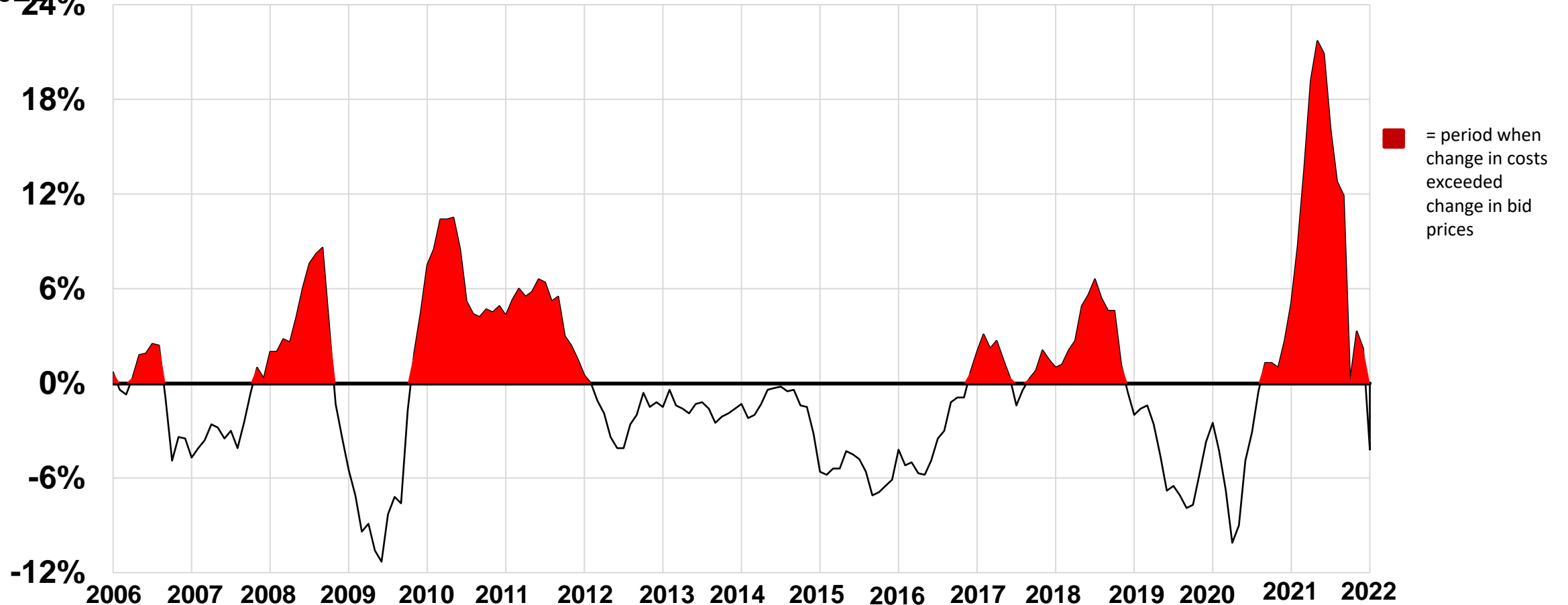
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INDUSTRY

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



2022
24%

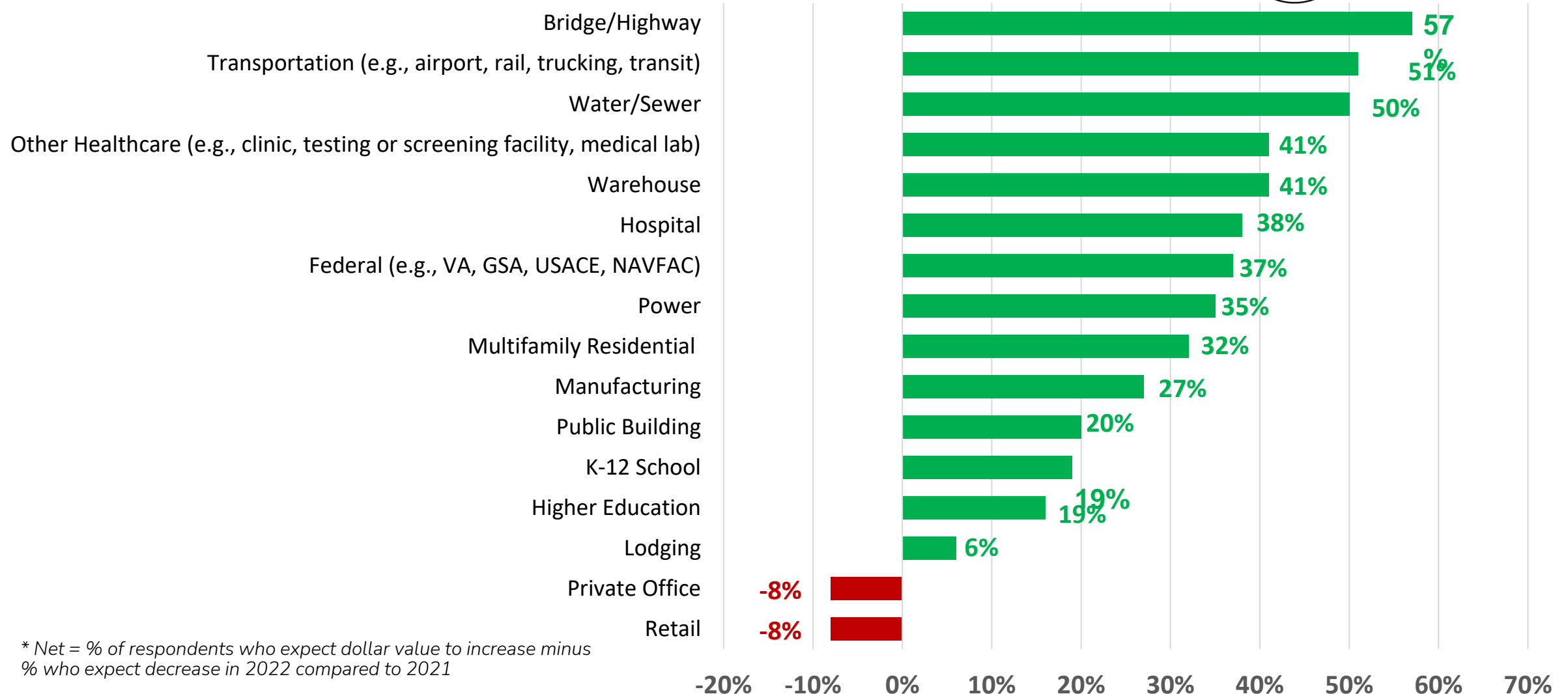




AGC Outlook Survey: Net* % who expect 2022 value of projects to be **higher/lower** than 2021



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* Net = % of respondents who expect dollar value to increase minus % who expect decrease in 2022 compared to 2021



Medium-term impacts as recovery begins



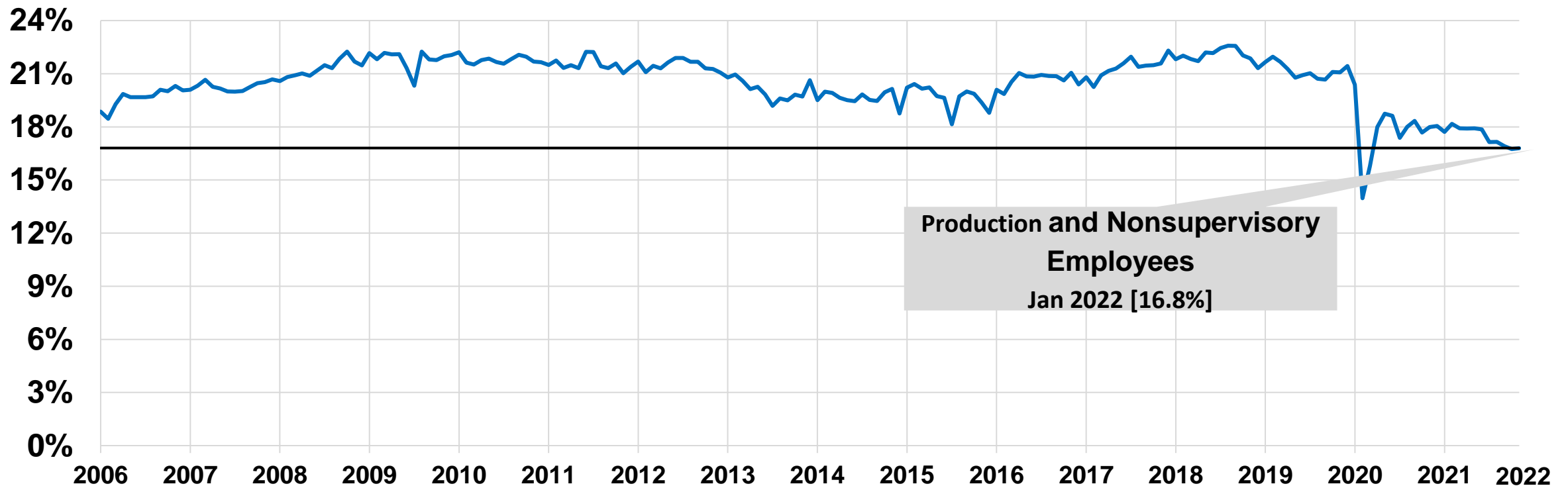
- Economic recovery looks more certain but virus risks remain, especially for construction: low worker vaccination rate; possible pullback by owners on project starts
- Slower rebound than for other sectors as owners, investors/lenders, institutions, and public agencies face uncertainty about future demand, project costs, and completion times
- Continuing cost and supply challenges may lead to more project deferrals
- Infrastructure funds will take time to distribute and award to individual projects, muting the medium-term impact on labor and materials supply
- Best prospects: manufacturing, distribution, data centers, renewable energy

2 concerns about construction worker supply



- Low vaccination rate: 56% for construction workers, 83% for other occupations
- “Premium” for construction wages relative to total private sector has shrunk from 20-23% pre-pandemic to 17% for production & nonsupervisory employees

Average hourly earnings in excess of total private sector, March 2006-January 2022





Long-run construction outlook (post-pandemic)



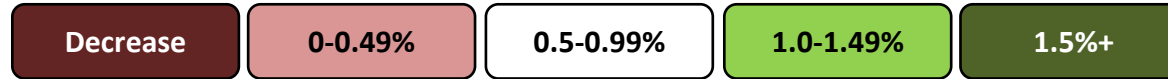
- Slower population growth means slower demand growth for most construction
- Permanent shift from retail to e-commerce/distribution structures
- More specialized and online healthcare facilities; fewer hospitals, nursing homes
- More wind, solar, battery storage and charging facilities, and related manufacturing
- Less oil drilling and pipeline construction
- Continuing demand for K-12 but much less for higher ed construction
- Not clear if offices will decentralize or remain in less demand
- Not clear yet if urban/rural or state-to-state trends will change



Population change by state, July 2020–July 2021 (U.S.: 0.12%)



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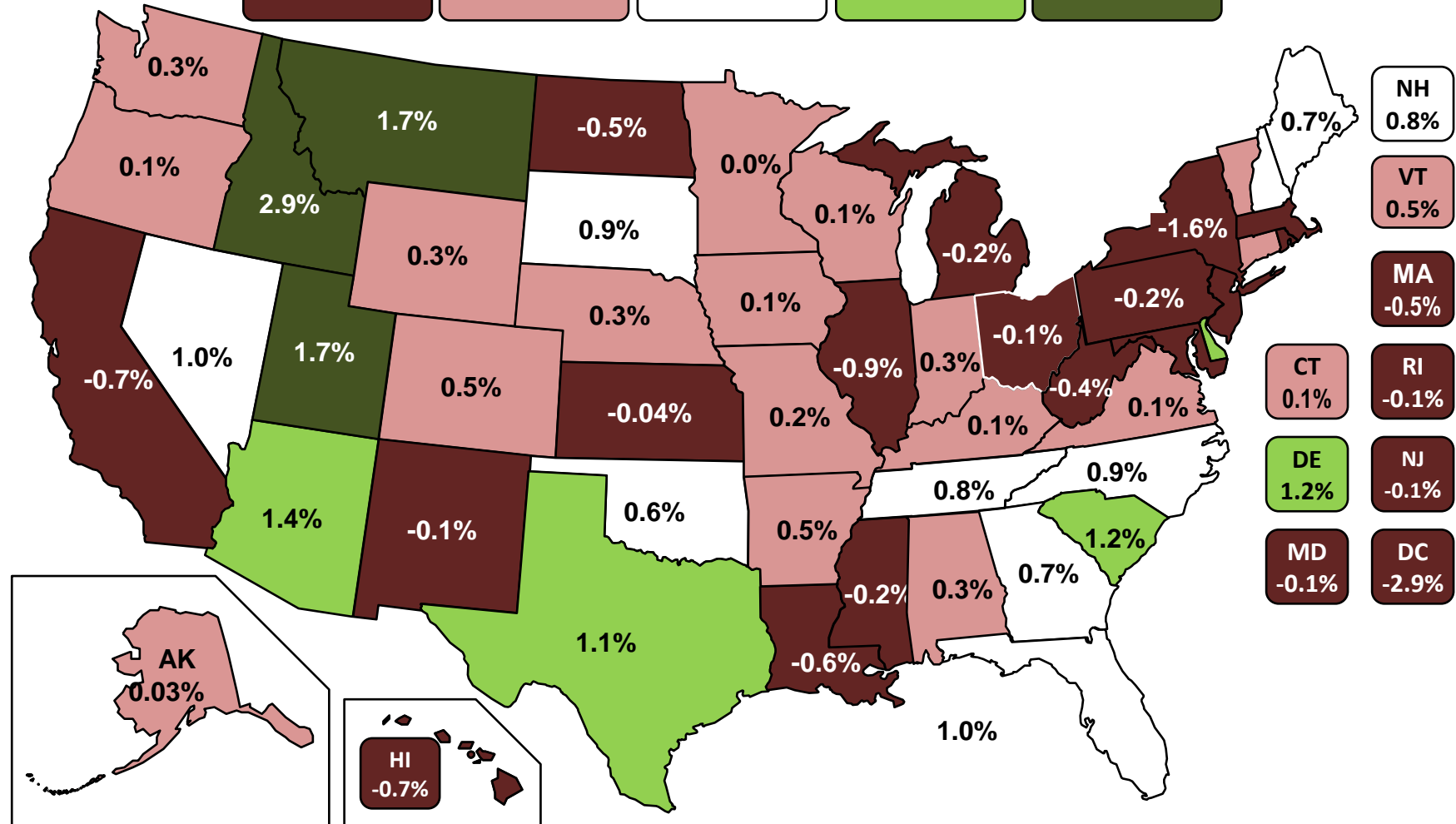


Top 6

ID	2.9%
UT	1.7%
MT	1.7%
AZ	1.4%
SC, DE	1.2%

Bottom 5

DC	-2.9%
NY	-1.6%
IL	-0.9%
HI	-0.7%
CA	-0.7%





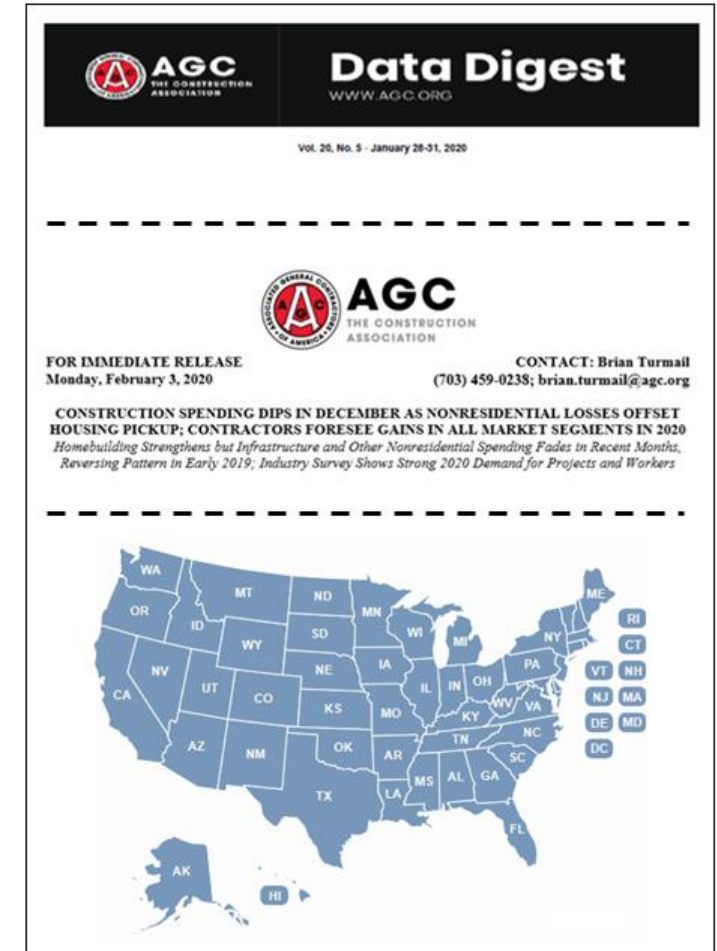
AGC economic resources

(email ken.simonson@agc.org)



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- *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/>
- Surveys, 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: <https://www.agc.org/newsroom>





Michael Mammone

Sr. Vice President, Sales



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Recent Impacts on the Supply Chain in the Construction Industry



Timeframe of Impact



March 2020:

Covid hits and manufacturers stall production, expecting demand to slow
Overseas container costs begin increasing from \$4k to \$20k per container



Residential

- Home renovations spike: Consumers invest in home remodels instead of taking vacations which drive high demand for residential products
- Manufacturers implement allocations due to increased demand and labor shortages occurring from Covid



Commercial

- Business drops slightly due to hospitals and schools slowing or stopping projects
- Switch gear manufacturer lead times are negatively impacted due to labor shortages, raw material shortages and chip shortage. Lead times go from normal 8 – 12 weeks to running at 52+ weeks.



Timeframe of Impact



February 2021:

National resin shortage due to Texas ice storms which affect two of the three biggest resin producers, who each declare force majeure, and complicate an already increased demand for resin

Second half of 2021:

PPP loans are forgiven, and companies use the money to reinvest in business



Price increases from manufacturers go from one per year to five per year due to:

- ➡ Increased demand
- ➡ Labor shortages (which drove wage increases)
- ➡ Increased shipping costs due to trucker shortages



Other Factors Impacting Pricing



- Cost of additional inventory
- Cost of extended warranty on products
- Cost of warehousing for longer time periods

Commodity	2022	2021	2020
Copper #12	\$174.00	\$132.71	\$84.87
Copper 500MCM	\$12,008.71	\$8,509.81	\$5,399.39
Copper RAW CU	\$4.50 LBS	\$4.20 LBS	\$2.52 LBS
MC Cable - MCAL-12/2	\$610.00	\$435.00	\$380.00
Aluminum - 500 CM	\$2,794.60	\$3,909.11	\$1,168.62
Steel - 4" EMT	\$1,050.00	\$753.87	\$601.85
Steel - Hot Rolled Coil (\$ per ton)	\$1,056.00	\$1,264.00	\$590.00
PVC - 4" PVC	\$795.00	\$432.00	\$130.00



How Contractors are Managing



- Minimizing risk by locking in material at time of contractor award
- No longer accepting liquidated damage clauses, including price escalation verbiage, in contracts going forward
- Have begun stocking more material in their warehouses in order to maintain product for service work
- Engaging manufacturer early in bid process to help set clear expectations for owners during scop review



What is the “New Normal”?



- Extended lead times and high prices are forecasted to remain throughout 2022 and 2023
- Manufacturer inventory levels are expected to remain low at all times
- Several manufacturers have begun to shift manufacturing back to the US, but we most likely won't see a positive impact until 2024, at best
- Mars Electric has decided to carry double our normal inventory volume in an effort to keep product available for customers



PANEL DISCUSSION



Orli Perez

Senior Project Manager

NV5



Ross Mitchell

Chief Estimator & Director of Preconstruction

T.H. Martin, Inc.



Stan Hendricks

Director of Preconstruction

Gilbane Building Company

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Dean Vaughn

VP, Facilities, Engineering, Construction

University Hospitals



Arne Goldman

Director of Business Development

Marous Brothers Construction



Orli Perez – NV5
Ross Mitchell – TH Martin
Stan Hendricks – Gilbane
Dean Vaughn – University Hospitals
Arne Goldman – Marous



Questions



Plus / Delta

Plus (+)

Delta (-)



Next Program

23 March 2022

Infrastructure Bill