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# COGENCE Alliance

Owners + Architects + Engineers + Contractors

*Inspire. Educate. Unite.*



# Mission + Purpose

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**Cogence** *(Latin)*

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

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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](http://www.cogence.org)

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# September Summit

*Inspire. Educate. Unite.*



# September Summit

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***Save the date coming soon!!***

*Inspire. Educate. Unite.*



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# Agenda

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



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**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](mailto:ken.simonson@agc.org)



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

cumulative change (seasonally adjusted)



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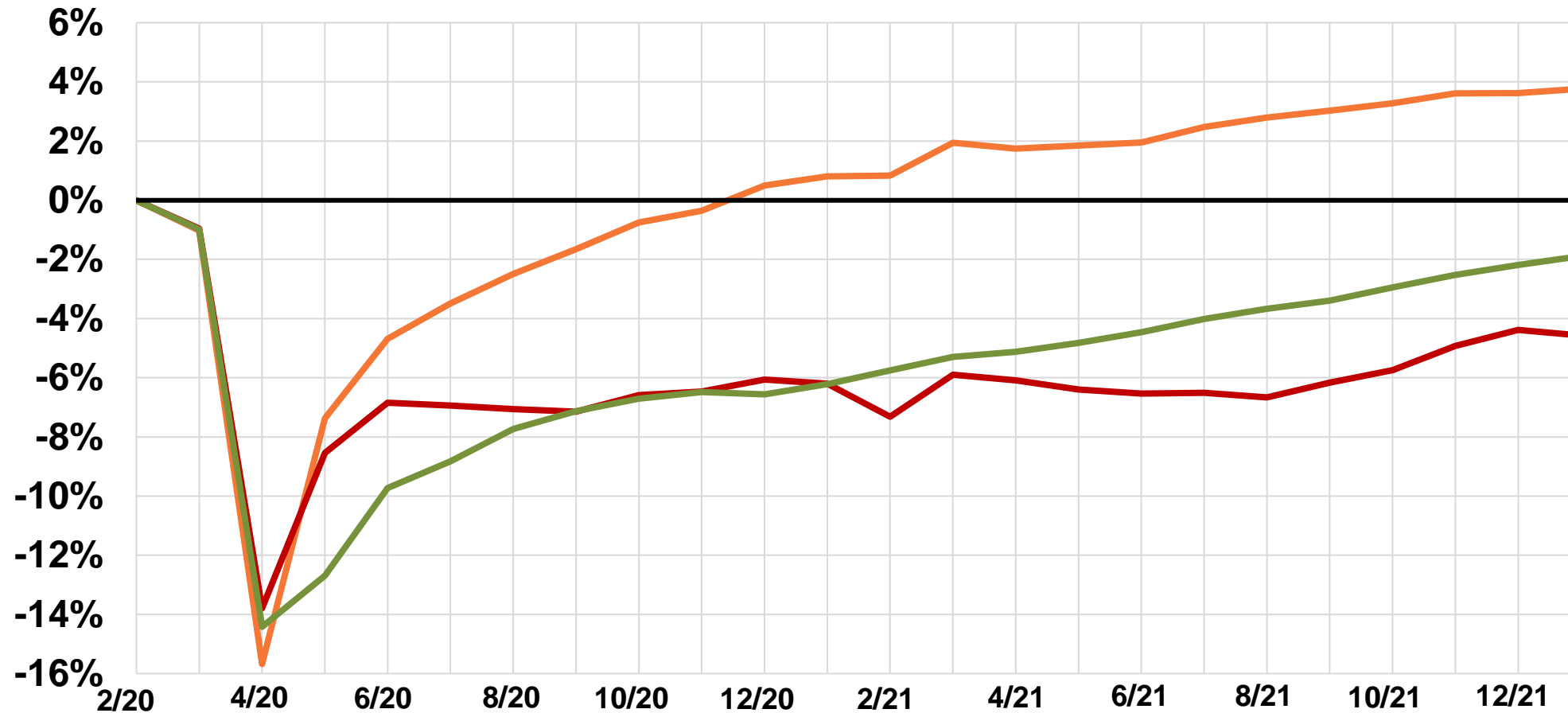
**Change to 1/22**

**from:**

**2/20 1/21**

**Residential Construction 3.8% 2.9%**

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





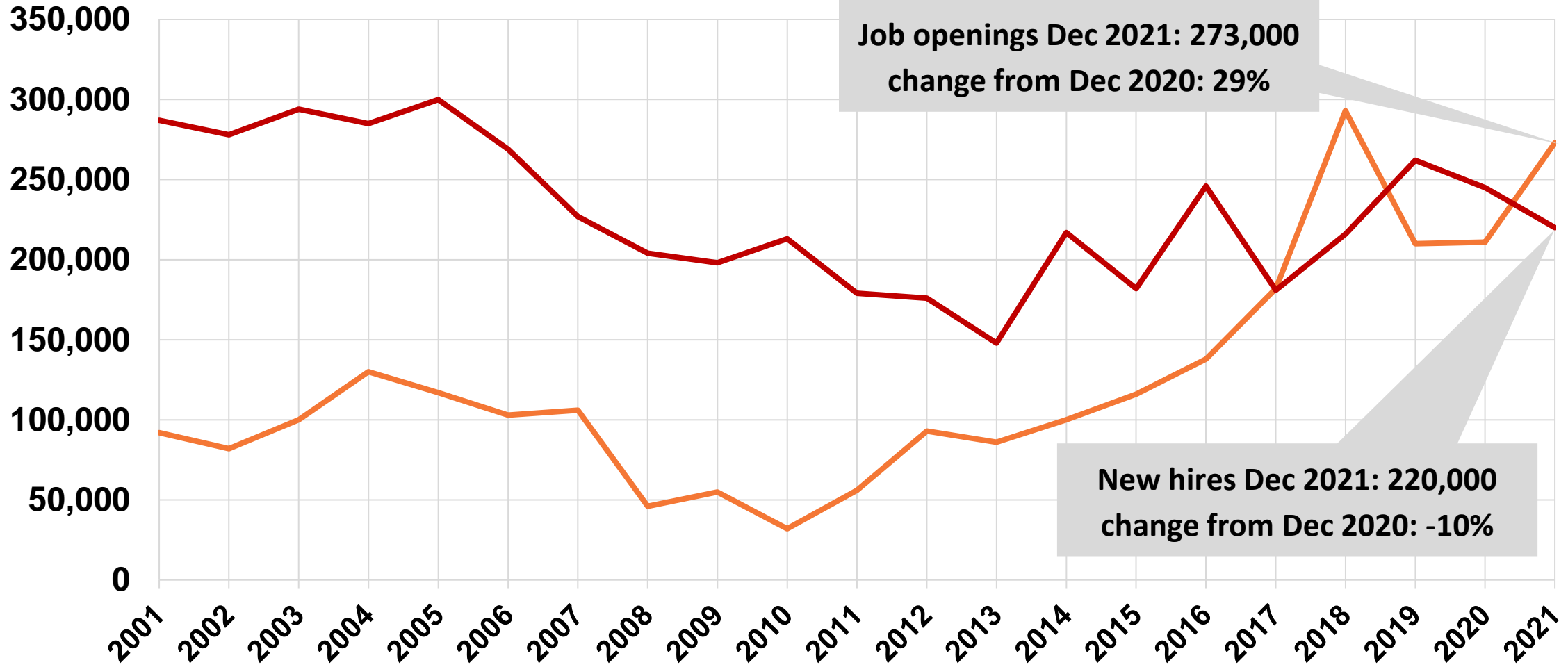


# Construction job openings and hires

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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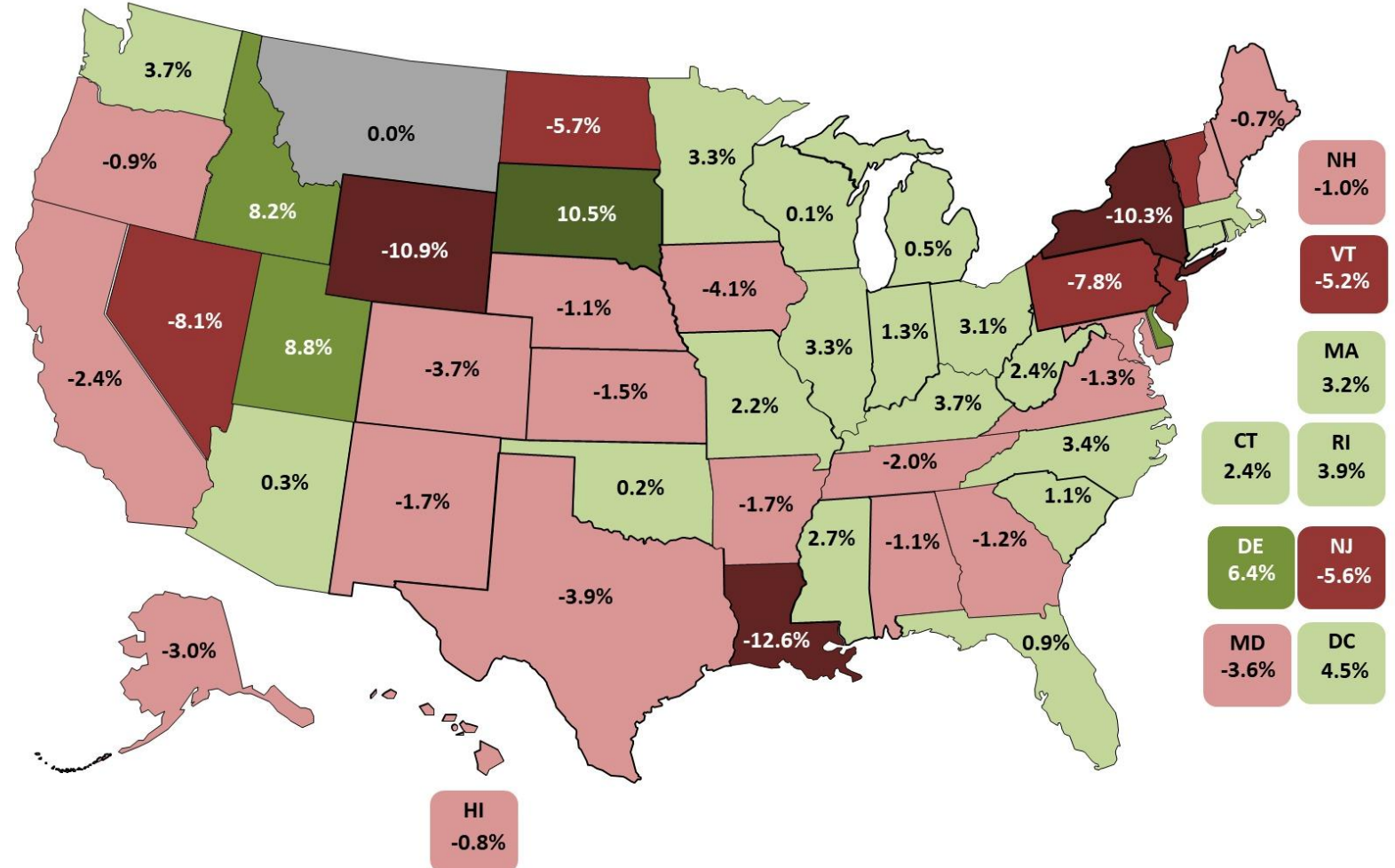


## Top 5

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%

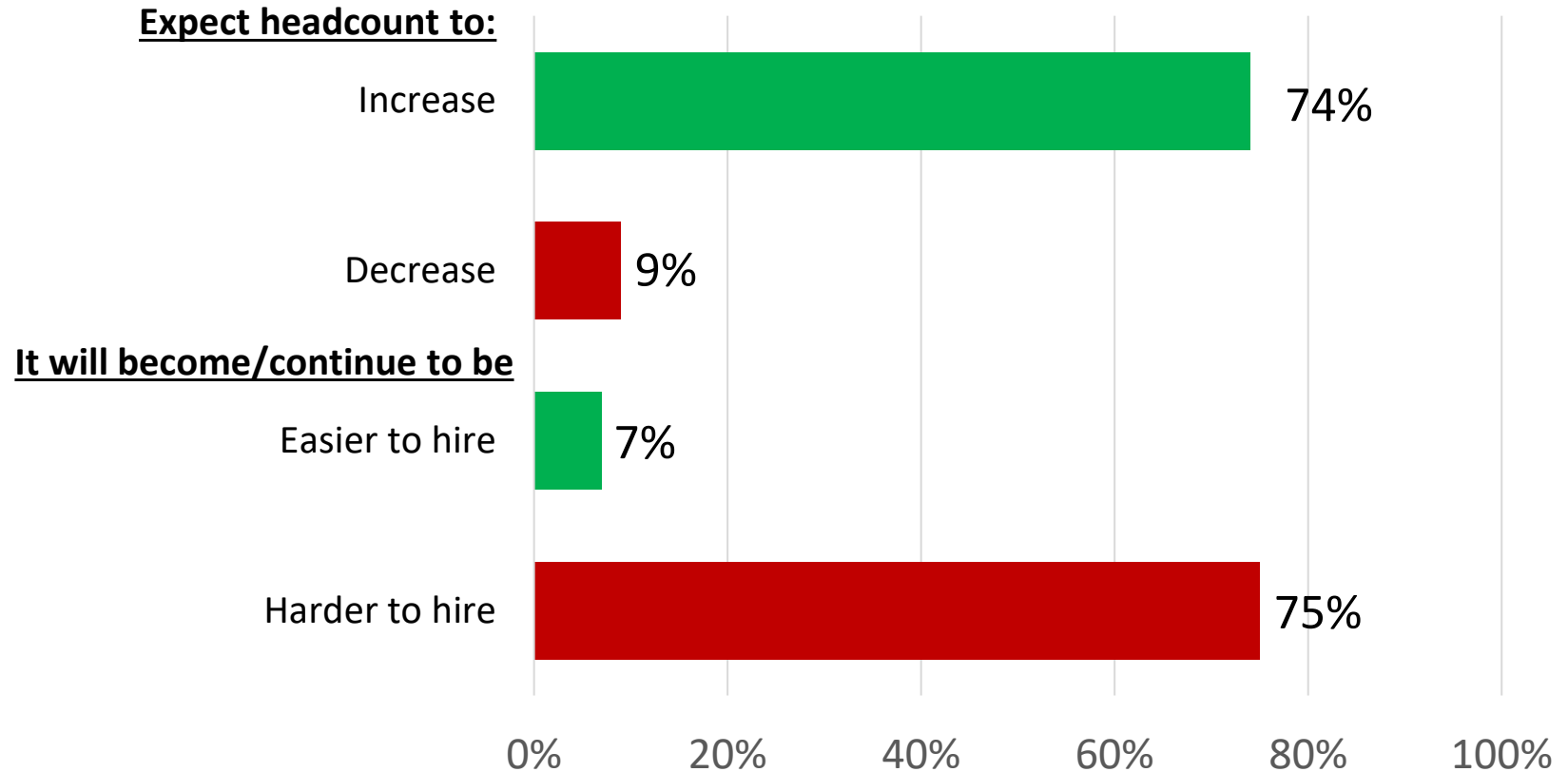




# 2022 AGC Hiring & Outlook Survey: Firms' expectations regarding headcount and hiring over next 12 months



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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%

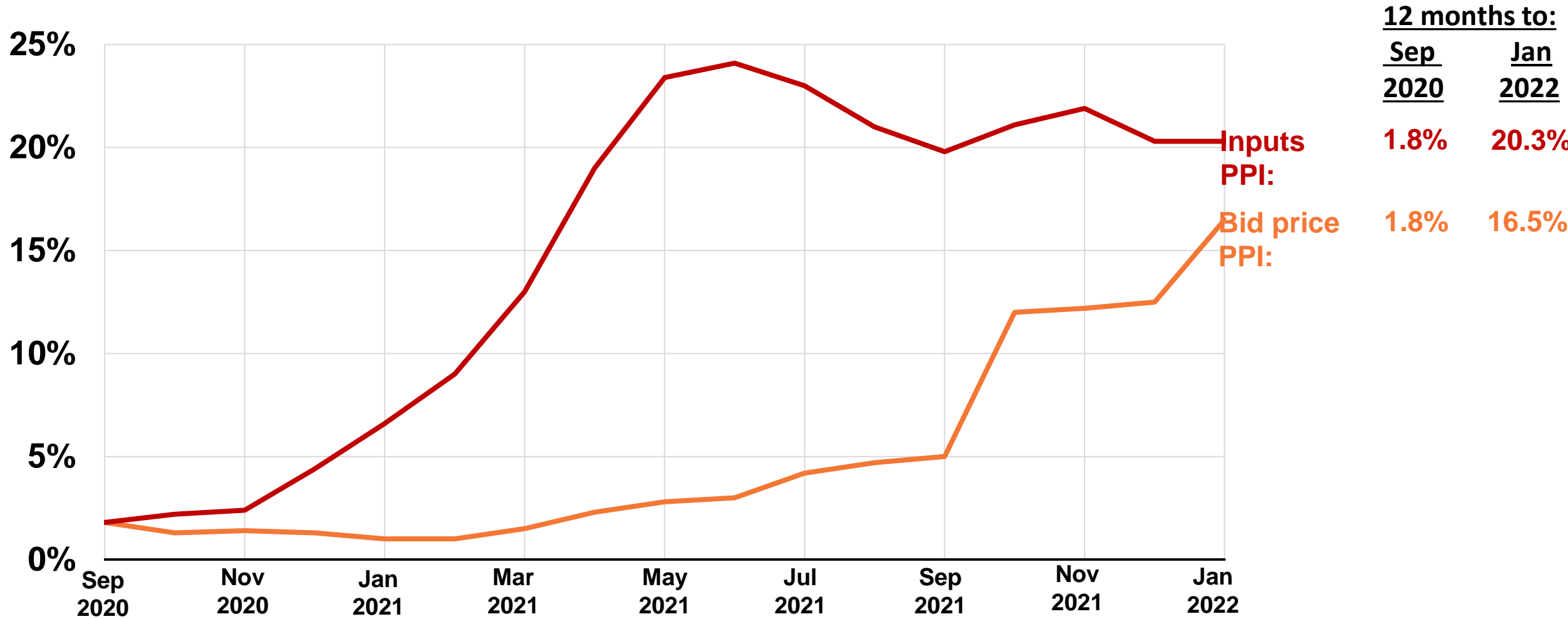


# Change in prices for inputs to new nonresidential construction

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%

89%

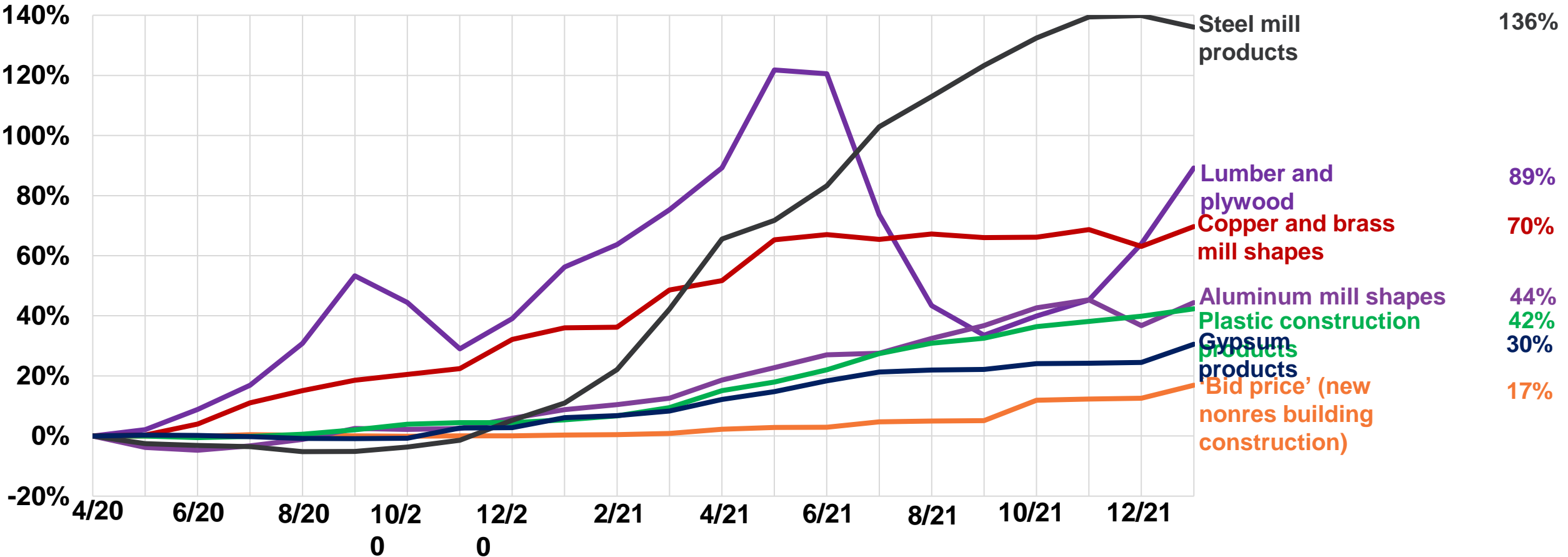
70%

44%

42%

30%

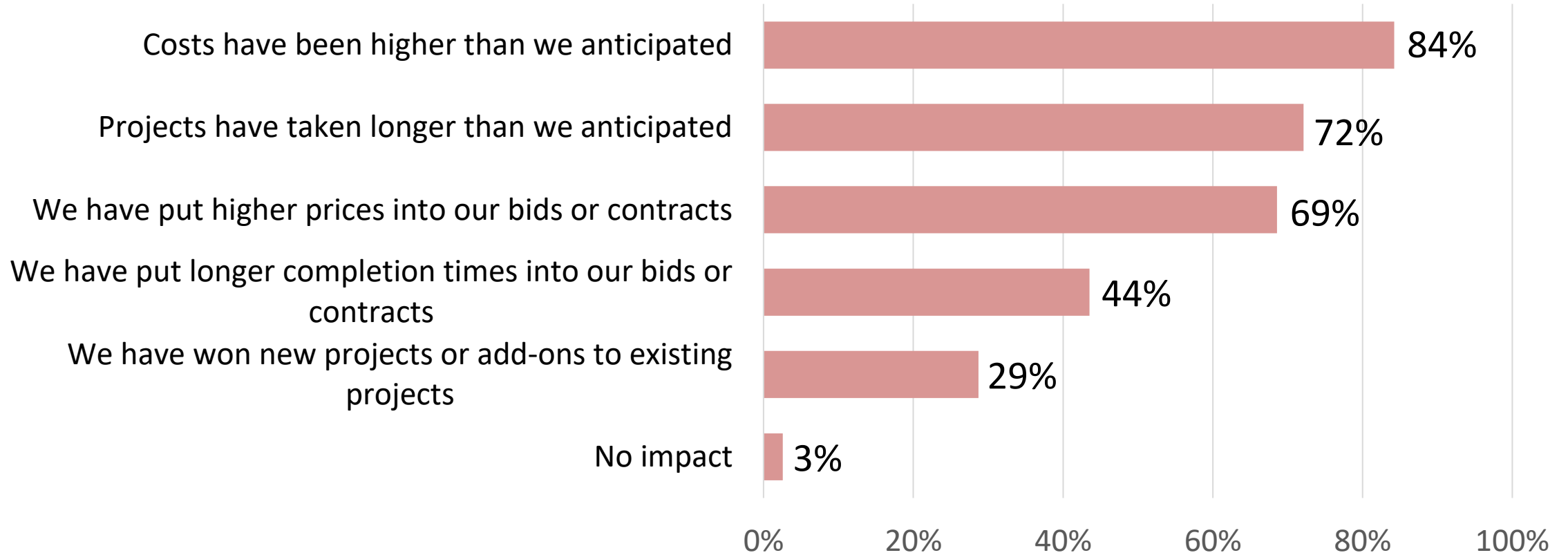
17%



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



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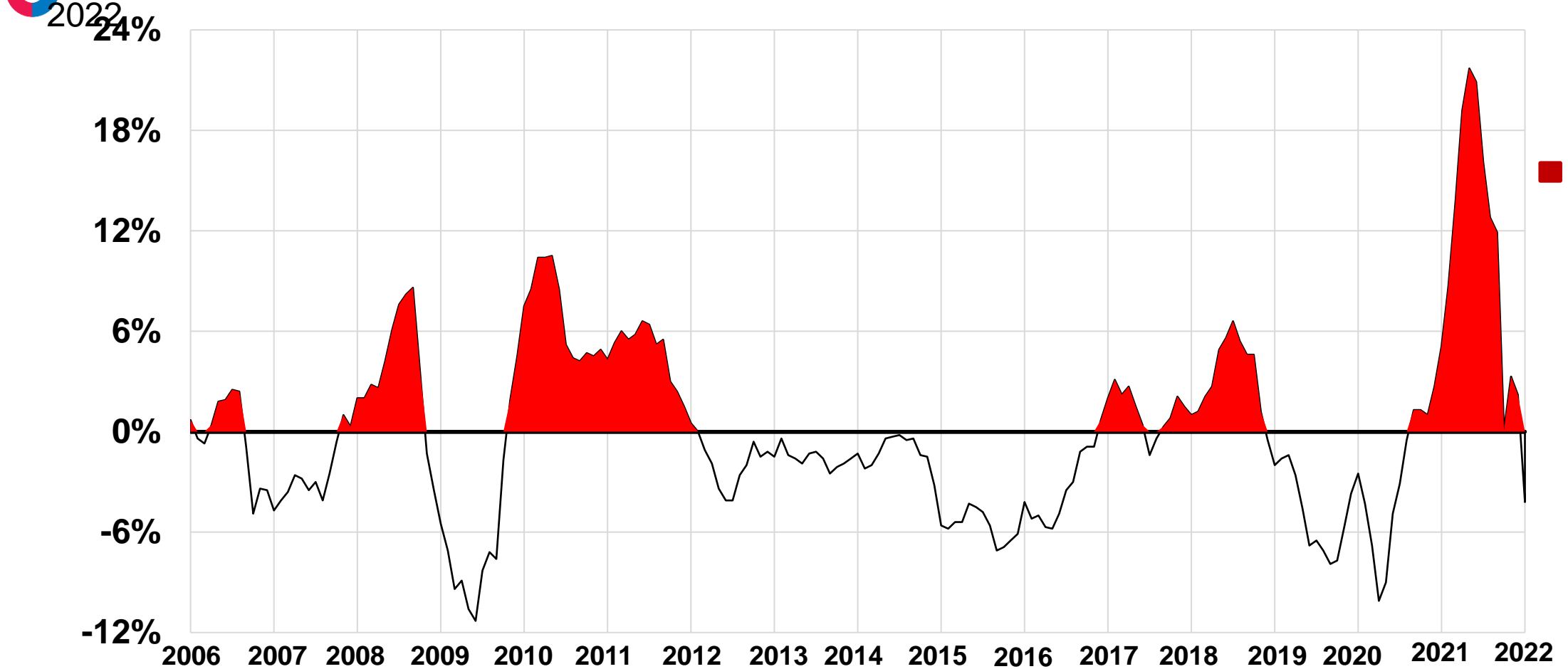


# Cost squeeze on contractors can last two years or more



CONSTRUCTION  
INDUSTRY

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



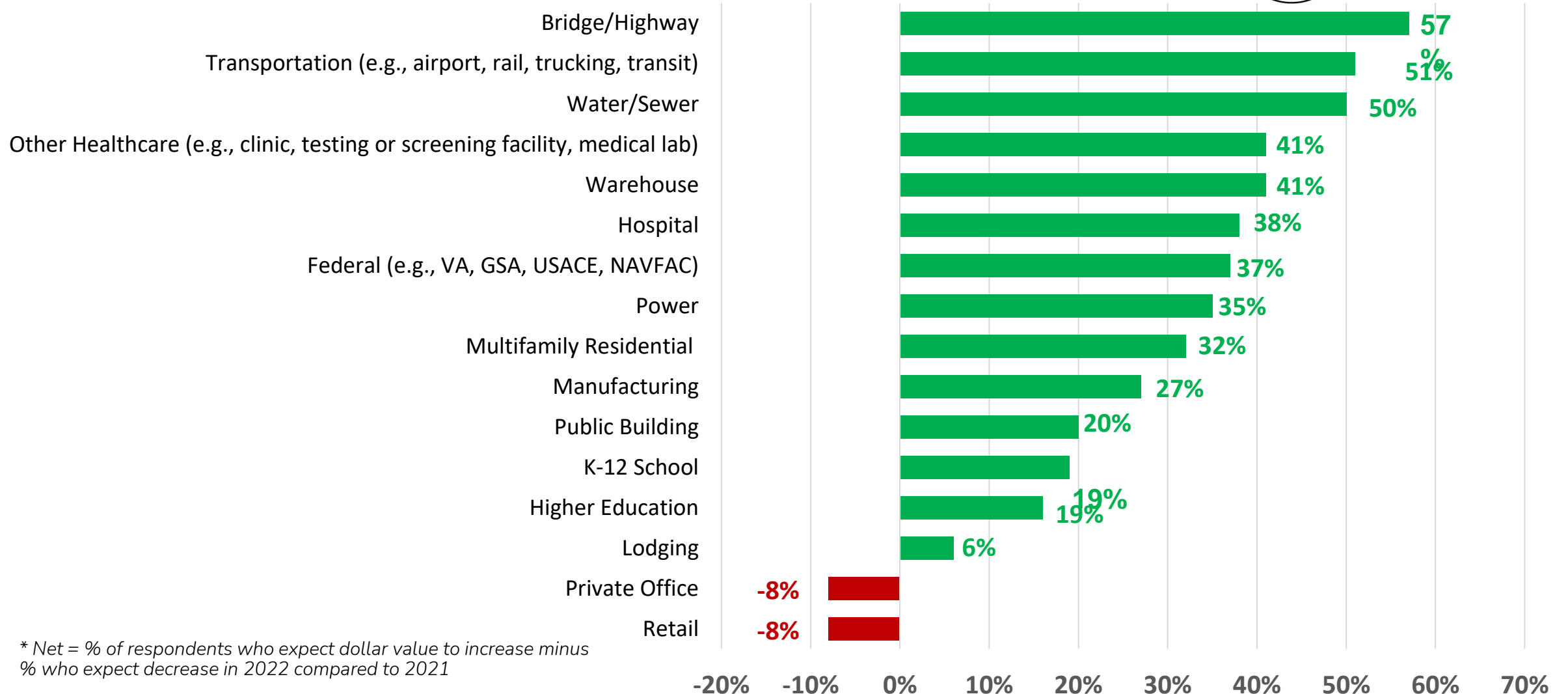




# AGC Outlook Survey: Net\* % who expect 2022 value of projects to be higher/lower than 2021



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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



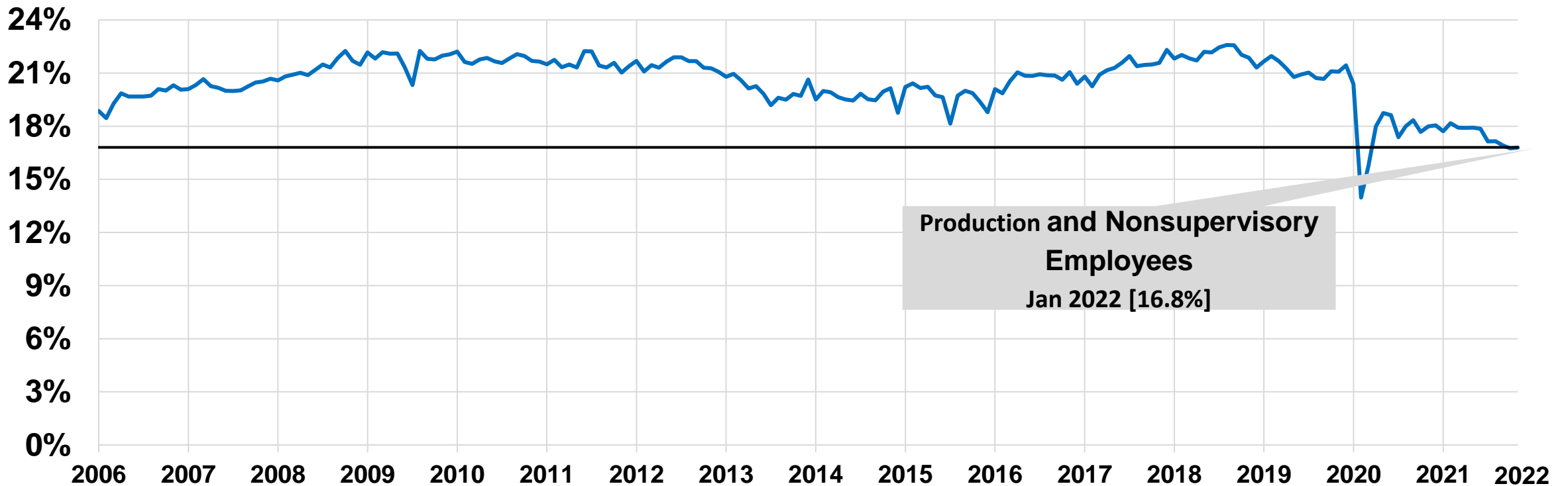
- Economic recovery looks more certain but virus risks remain, especially for construction: low worker vaccination rate; possible pullback by owners on project starts
- Slower rebound than for other sectors as owners, investors/lenders, institutions, and public agencies face uncertainty about future 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)

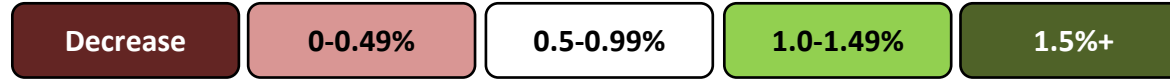


- Slower population growth means slower demand growth for most construction
- Permanent shift from retail to e-commerce/distribution structures
- More specialized and online healthcare facilities; fewer hospitals, nursing homes
- More wind, solar, battery storage and charging facilities, and related 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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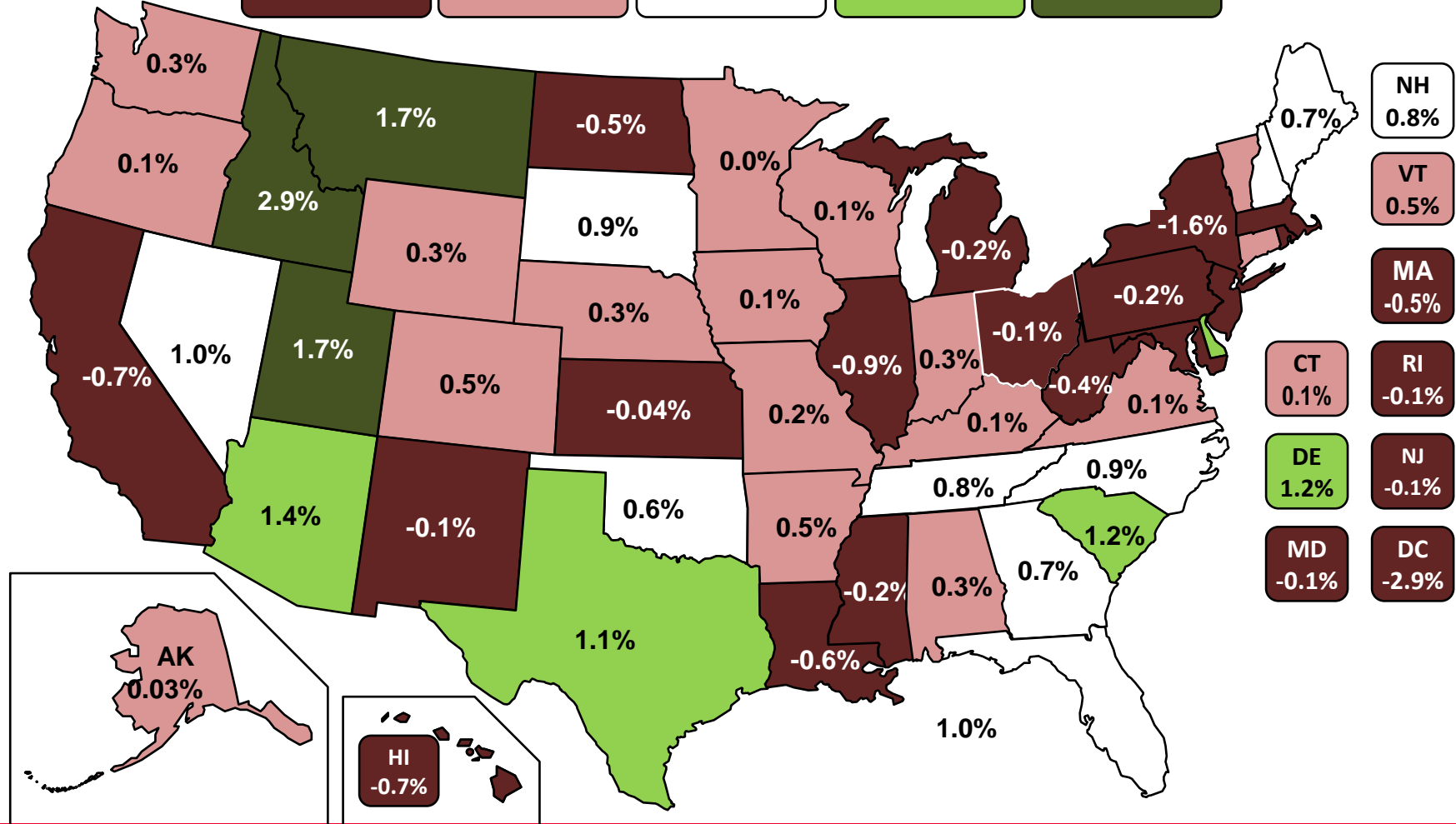


## Top 6

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](mailto: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/>
- Surveys, state and metro data, fact sheets: [www.agc.org/learn/construction-data](http://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>

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WWW.AGC.ORG

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FOR IMMEDIATE RELEASE  
Monday, February 3, 2020

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**CONSTRUCTION SPENDING DIPS IN DECEMBER AS NONRESIDENTIAL LOSSES OFFSET HOUSING PICKUP; CONTRACTORS FORESEE GAINS IN ALL MARKET SEGMENTS IN 2020**  
*Homebuilding Strengthens but Infrastructure and Other Nonresidential Spending Fades in Recent Months, Reversing Pattern in Early 2019; Industry Survey Shows Strong 2020 Demand for Projects and Workers*



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# 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

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## 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

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- 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”?

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- 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



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# PANEL DISCUSSION



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# Orli Perez

Senior Project Manager

NV5



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# **Ross Mitchell**

Chief Estimator & Director of Preconstruction  
T.H. Martin, Inc.





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# Stan Hendricks

Director of Preconstruction

Gilbane Building Company



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# Dean Vaughn

VP, Facilities, Engineering, Construction

University Hospitals



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# Arne Goldman

Director of Business Development

Marous Brothers Construction



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



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# Questions



# Plus / Delta

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**Plus (+)**

**Delta (-)**



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# Next Program

23 March 2022

Infrastructure Bill