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U.S. Construction Outlook: Workforce Worries, Cost Challenges, Project Prospects

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

cumulative change (seasonally adjusted)



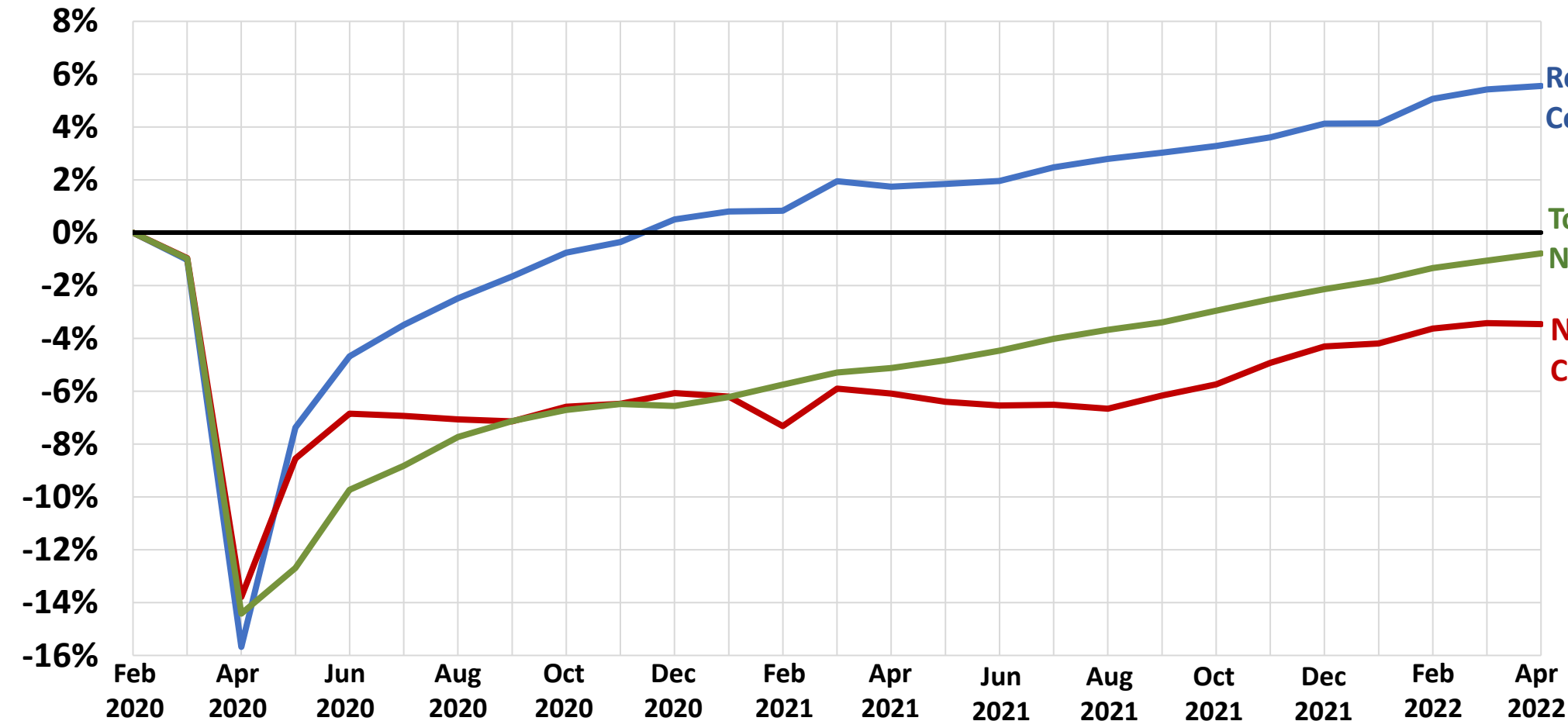
Change since Feb. 2020:

Number Percent

Residential Construction 165,100 5.6%

Total Nonfarm -1,190,000 -0.8%

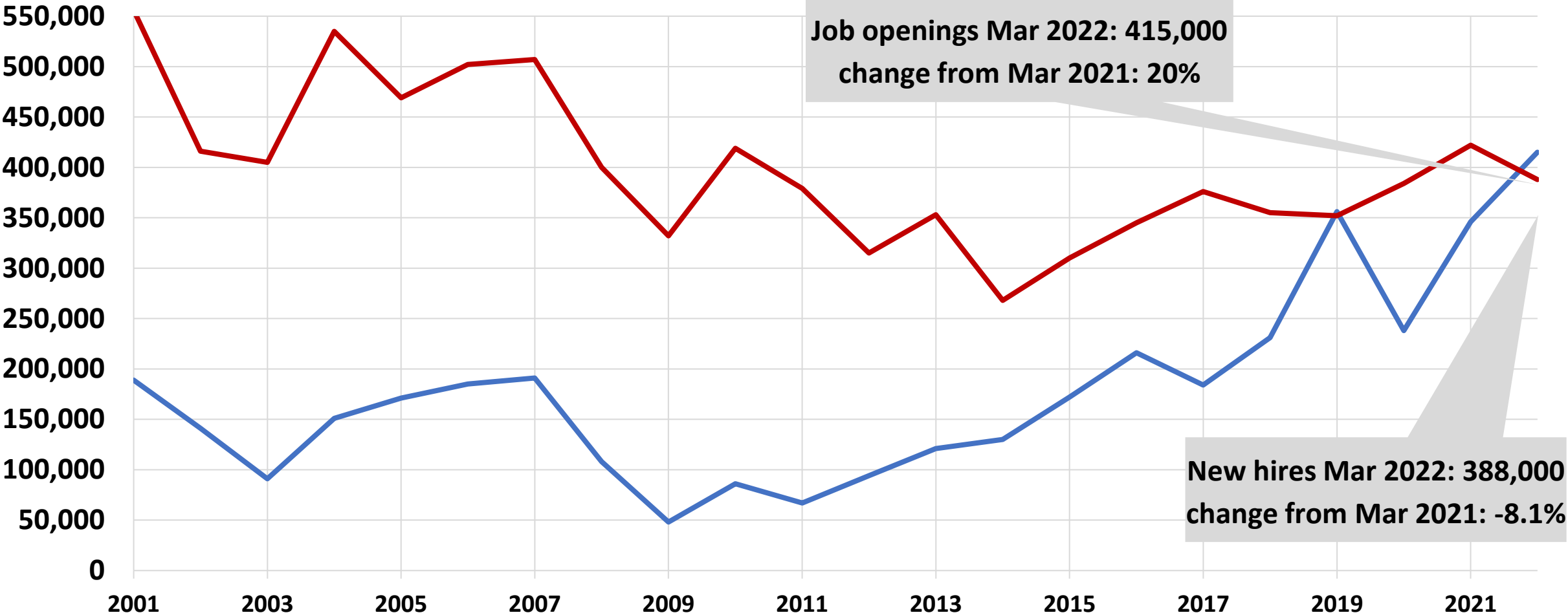
Nonresidential Construction -161,100 -3.5%



Construction job openings exceed hires, set record high for Mar.

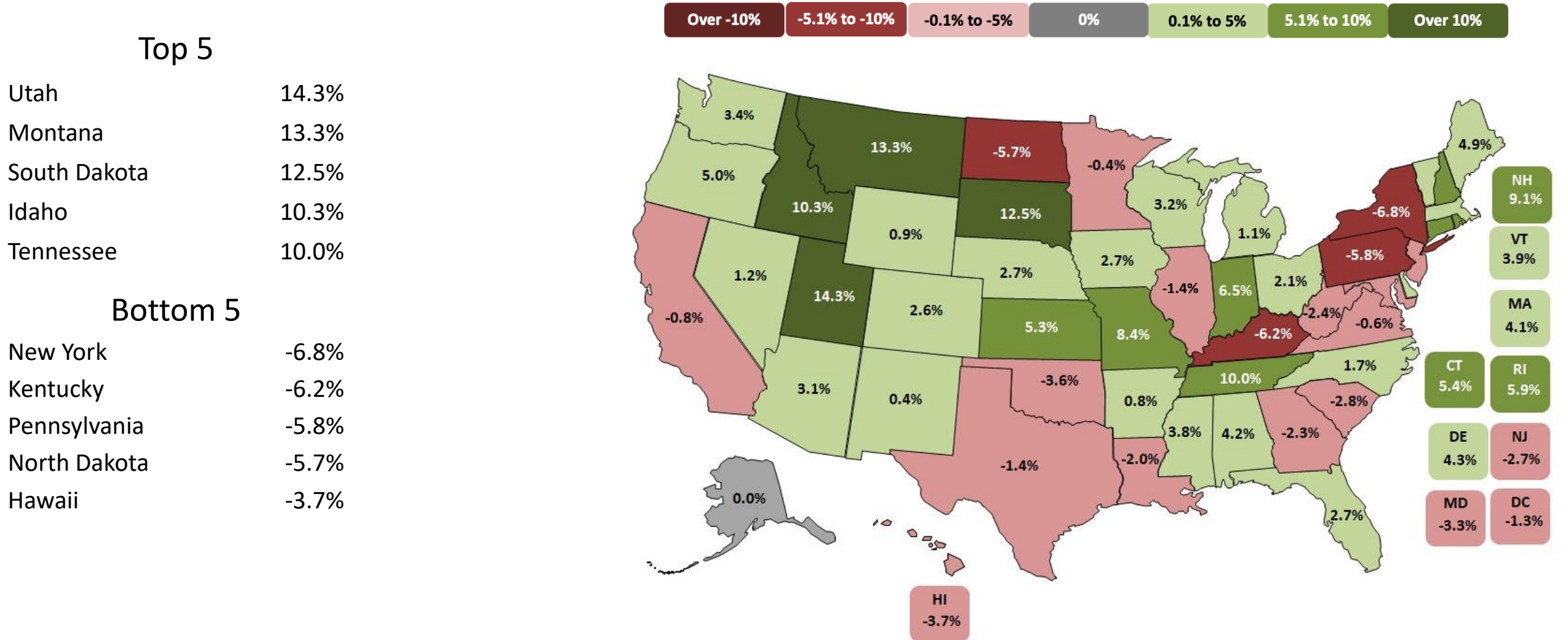


Job openings and hires, March 2001-March 2022, not seasonally adjusted



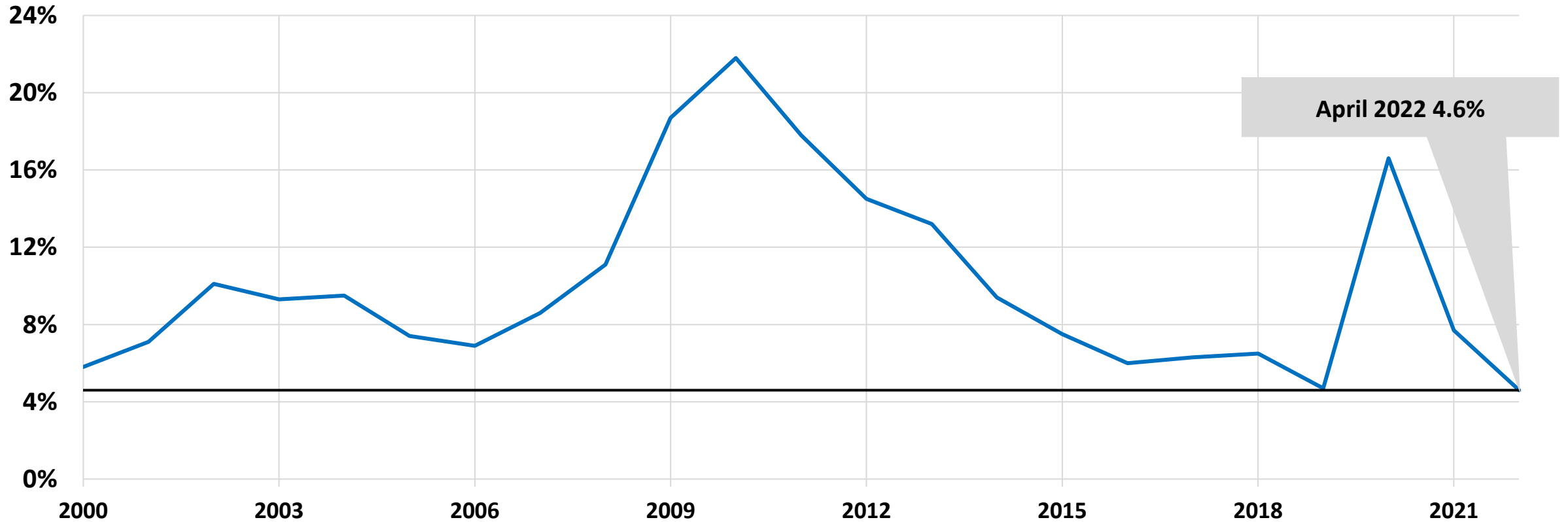
State construction employment change, Feb. 2020–Apr. 2022

32 states **up**, 1 **flat**, 17 states and DC **down** (U.S.: 0.1%)



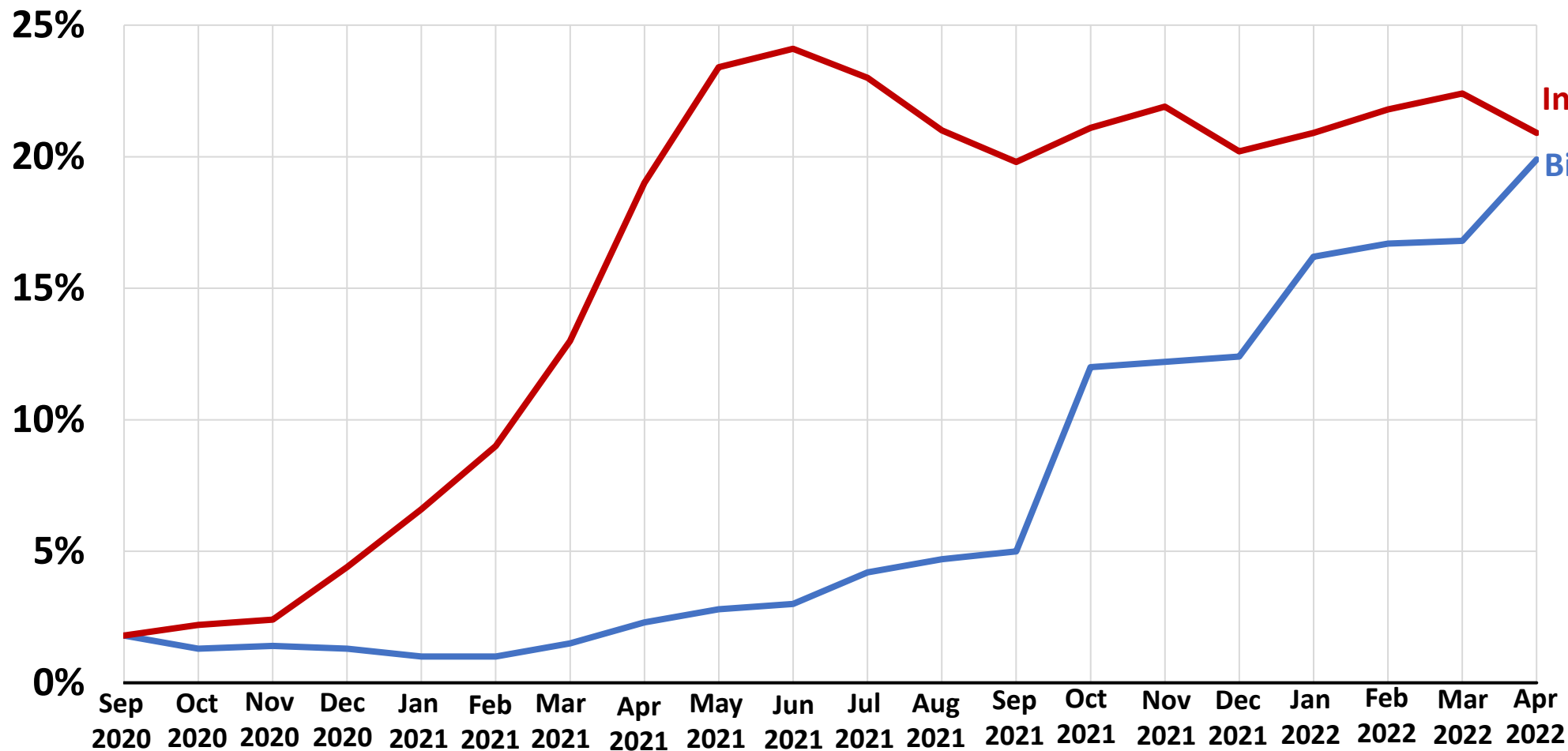
Rate of construction unemployment

year-over-year, April 2000–April 2022, not seasonally adjusted



Costs vs. bid prices for new nonresidential construction

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



12 months to:

| | <u>Sep</u> | <u>Apr</u> |
|--|-------------|-------------|
| | <u>2020</u> | <u>2022</u> |

Inputs PPI: 1.8% 20.9%

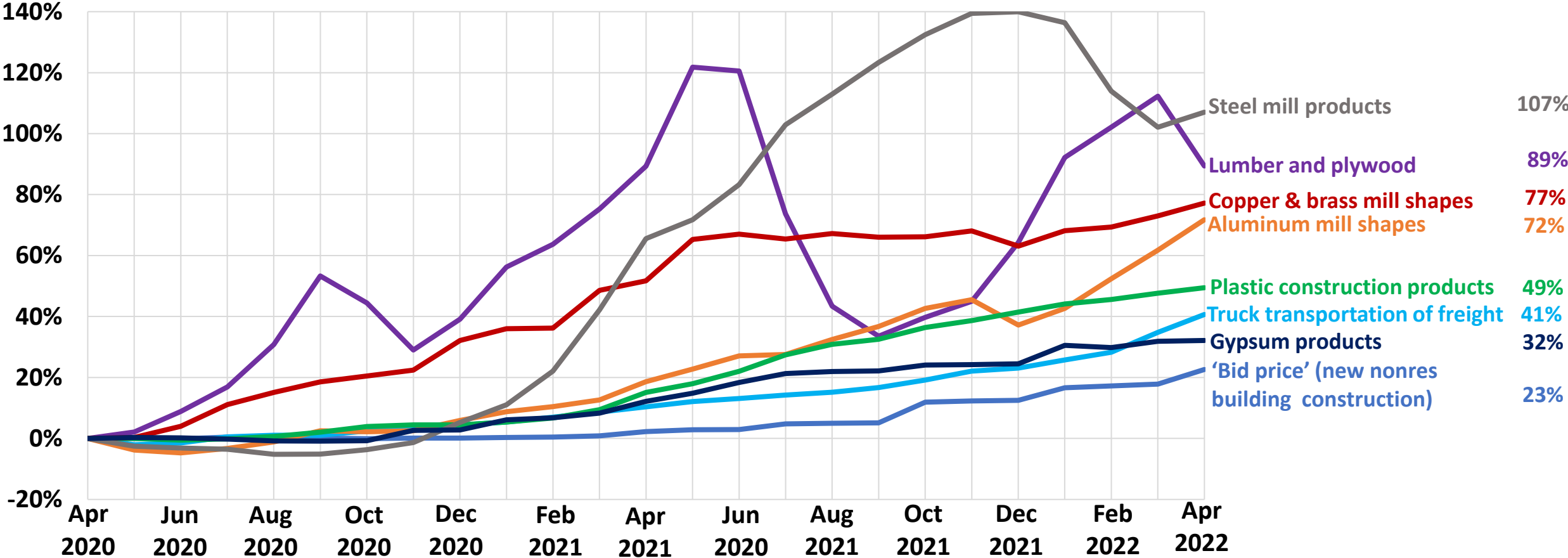
Bid price PPI: 1.8% 19.9%

PPIs for construction bid prices and selected inputs

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



% change
Apr 2020–
Apr 2022:



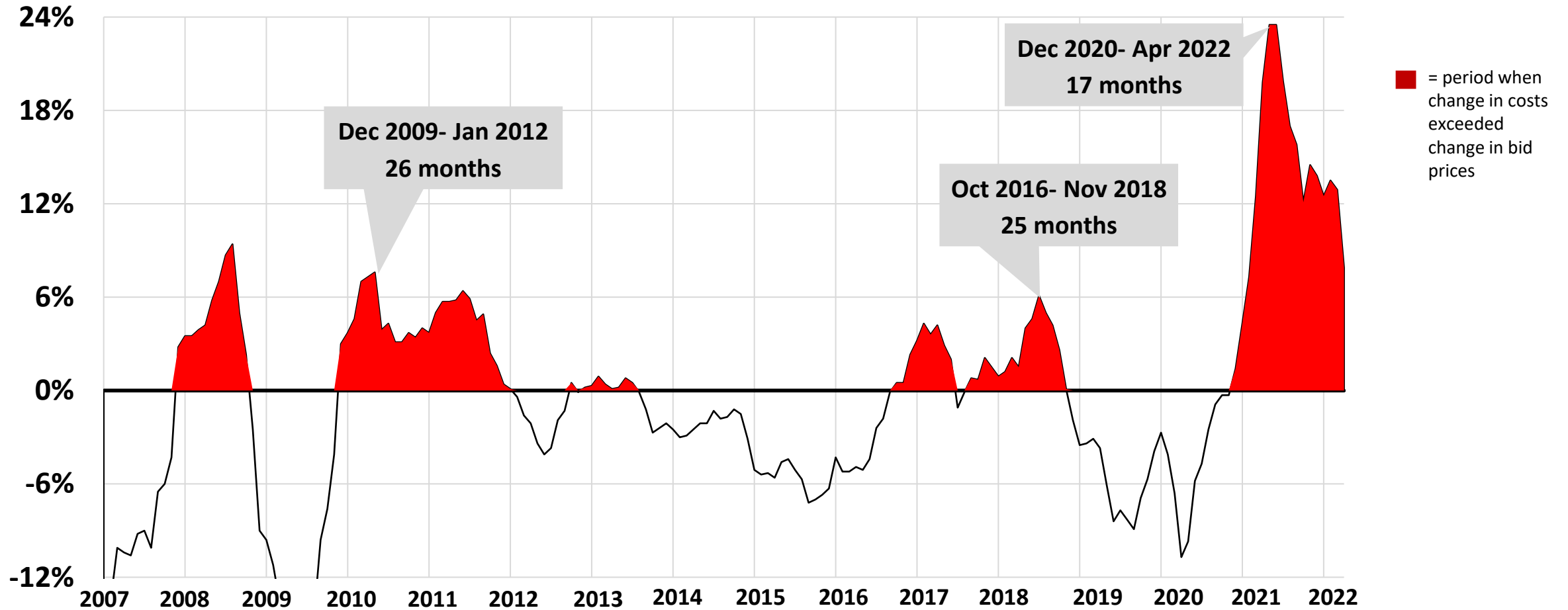
7 | Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

Cost squeeze on contractors can last two years or more

Difference between year-over-year change in materials costs vs. bid prices, Jan 2007-Apr 2022



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

Change in construction spending: Jan–March 2022 vs. 2021

current (not inflation-adjusted) dollars, not seasonally adjusted



- Total 12%; private residential 19% (single-family 20%; multi 5%); private nonres 9%; public 0.7%

Largest segments (in descending order of 2021 spending)

- Power 0.9% (electric 4%; oil/gas fields & pipelines -0.3%)
- Commercial 18% (warehouse 22%; retail 19%)
- Education -3% (primary/secondary -7%; higher ed -0.3%)
- Mfg. 34% (chemical -0.8%; computer/electronic 238%; food/beverage/tobacco 23%; transp. equip. -6%)
- Office 5%
- Highway and street 9%
- Transportation 0.0% (air -5%; freight rail/trucking 6%; mass transit -5%)
- Health care 7% (hospital 5%; medical building 15%; special care -14%)
- Lodging -27%

Forward-looking indicators



| Indicator | Latest date | Current value | Year-ago value |
|-------------------------------------|-------------|---------------|----------------|
| Architecture Billings Index (ABI) | April | 56.5 | 57.6 |
| Dodge Momentum Index (DMI) | April | 165 | 140 |
| Multifamily permits not yet started | April | 130,000 | 101,000 |

Medium-term impacts as recovery begins



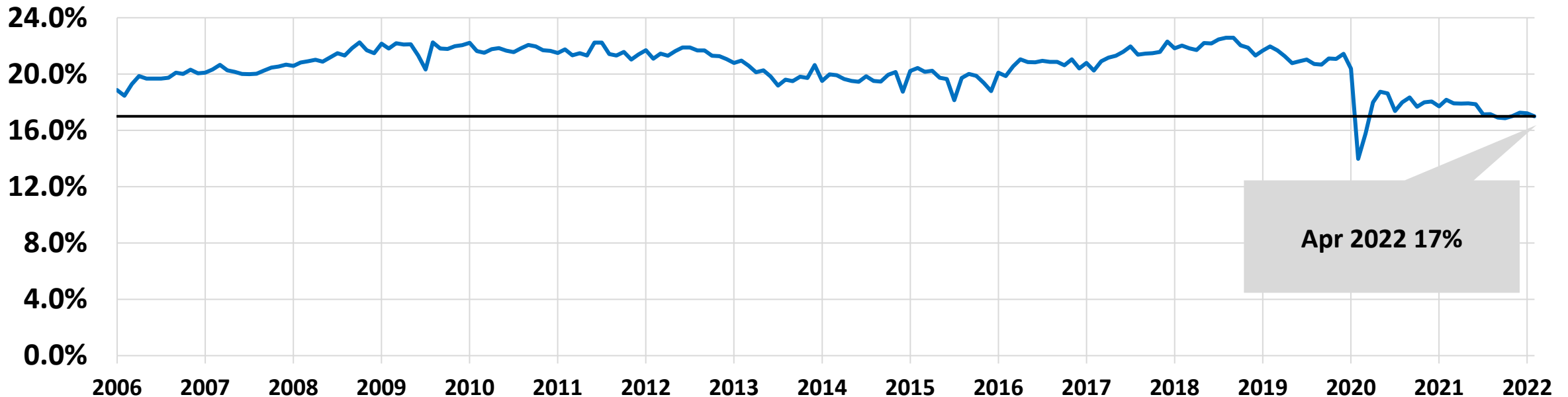
- Economic recovery should continue but invasion of Ukraine and Western sanctions add to cost and supply-chain pressures
- Slower rebound than for other sectors as owners, investors/lenders, institutions, and public agencies face uncertainty about future demand, costs, and completion times
- Continuing 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 “shortages”
- Best current prospects: manufacturing, data centers, renewable energy
- At risk of slowdown: warehouse, multifamily

Challenges regarding construction worker supply



- Low vaccination rate: 56% for construction workers, 82% 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 as other sectors boost pay, benefits and offer flexible hours and locations
- Implications: Contractors will have raise pay still more, pay more overtime, invest more in labor-saving software and equipment

Average hourly earnings in excess of total private sector, Mar 2006-Apr 2022

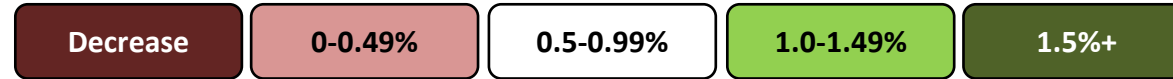


Long-run construction outlook (post-pandemic)



- Finding workers will be a challenge for much longer than materials costs or supply
- Slower population growth means slower demand growth for most construction
- Slowing demand for K-12, decline for higher ed 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
- Not clear if offices will decentralize or remain in less demand
- Not clear if recent urban/rural or state-to-state migration will remain or reverse

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

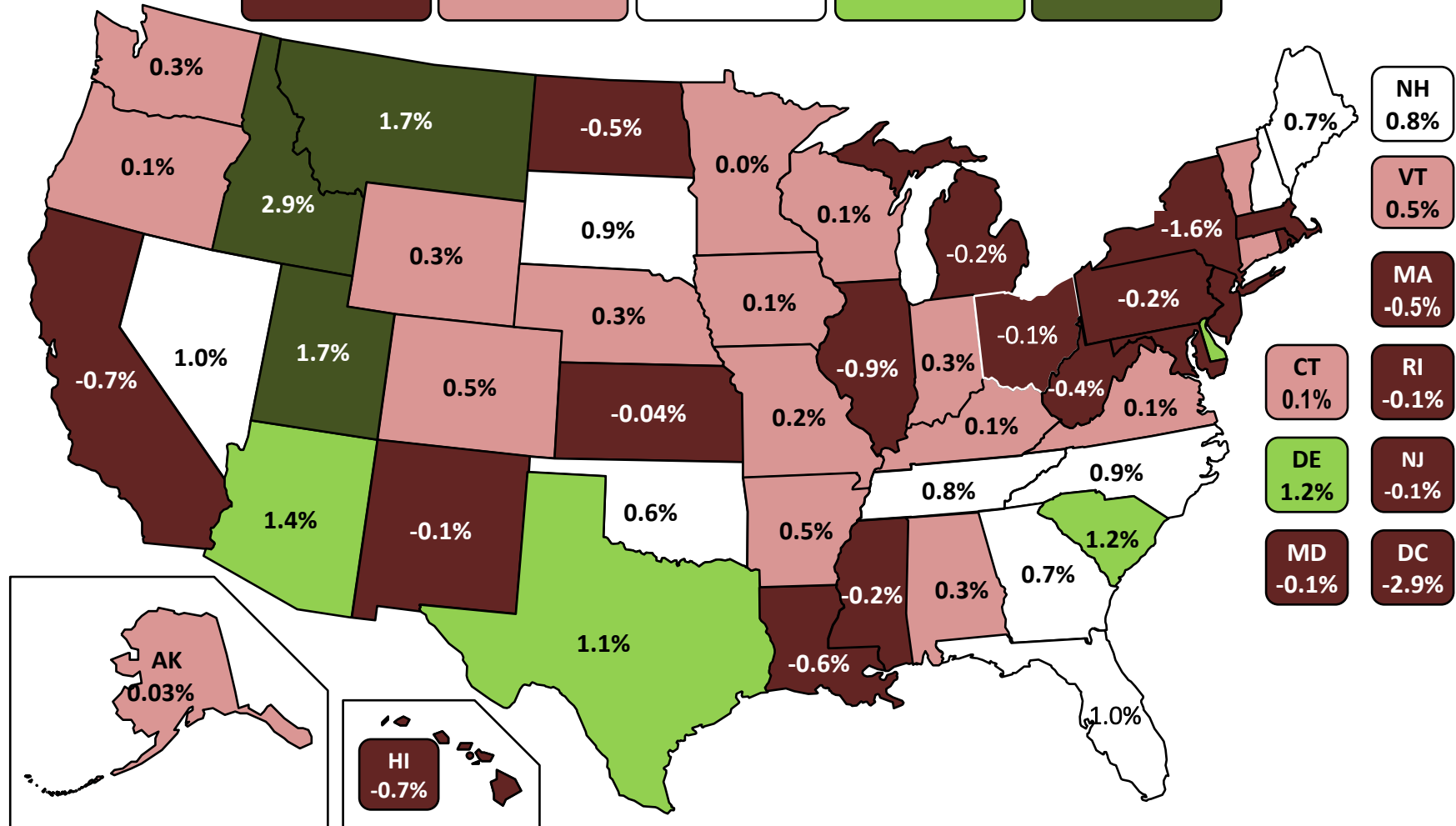


Top 6

| | |
|--------|------|
| 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)



- *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>

