November 11, 2021

U.S. Construction Outlook:

Pandemic Impacts, Policy Initiatives, Project Implications

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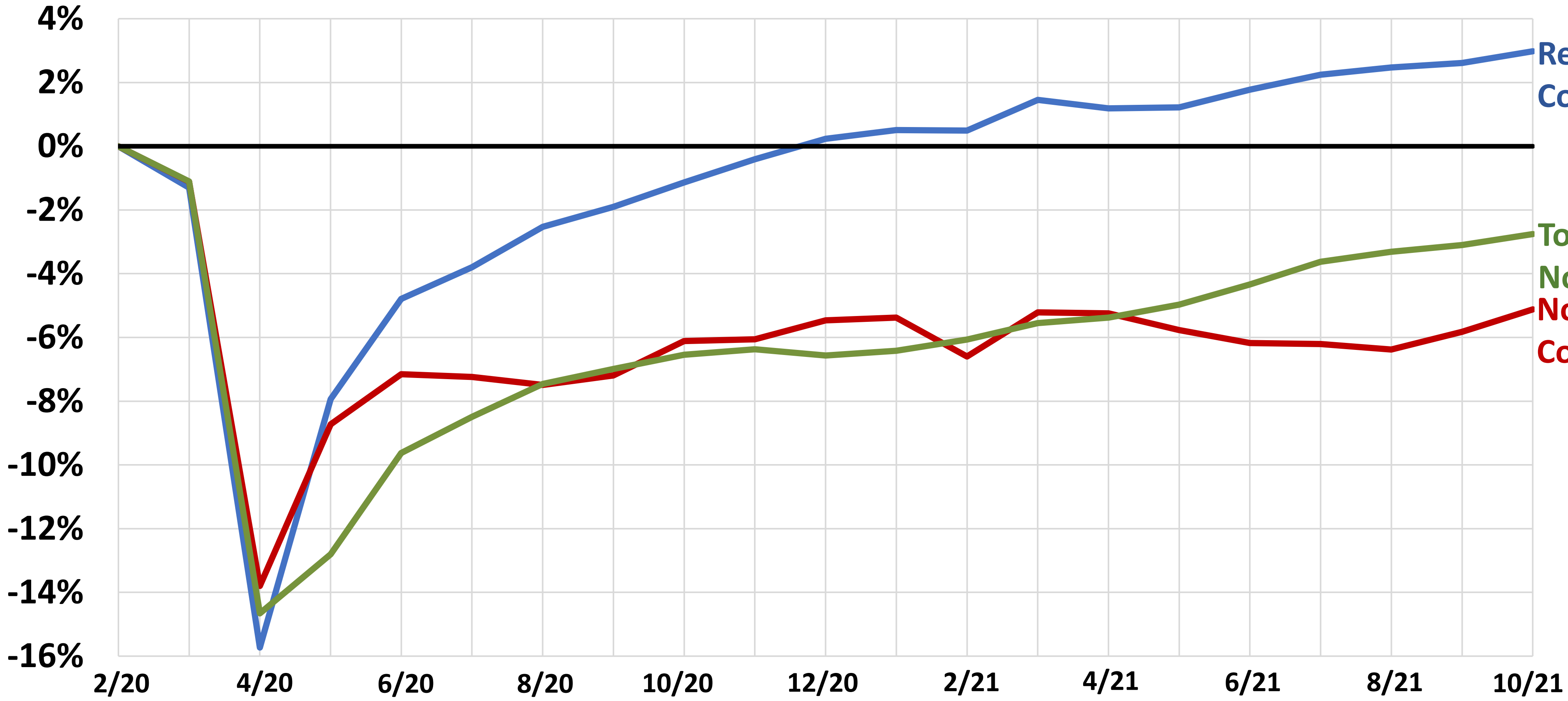
Total Nonfarm & Construction Employment, Feb. 2020–Oct. 2021

cumulative change (seasonally adjusted)



Change to 10/21 from:

	2/20	10/20
Residential Construction	3.0%	4.2%
Total Nonfarm	-2.8%	4.1%
Nonresidential Construction	-5.1%	1.1%

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

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

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

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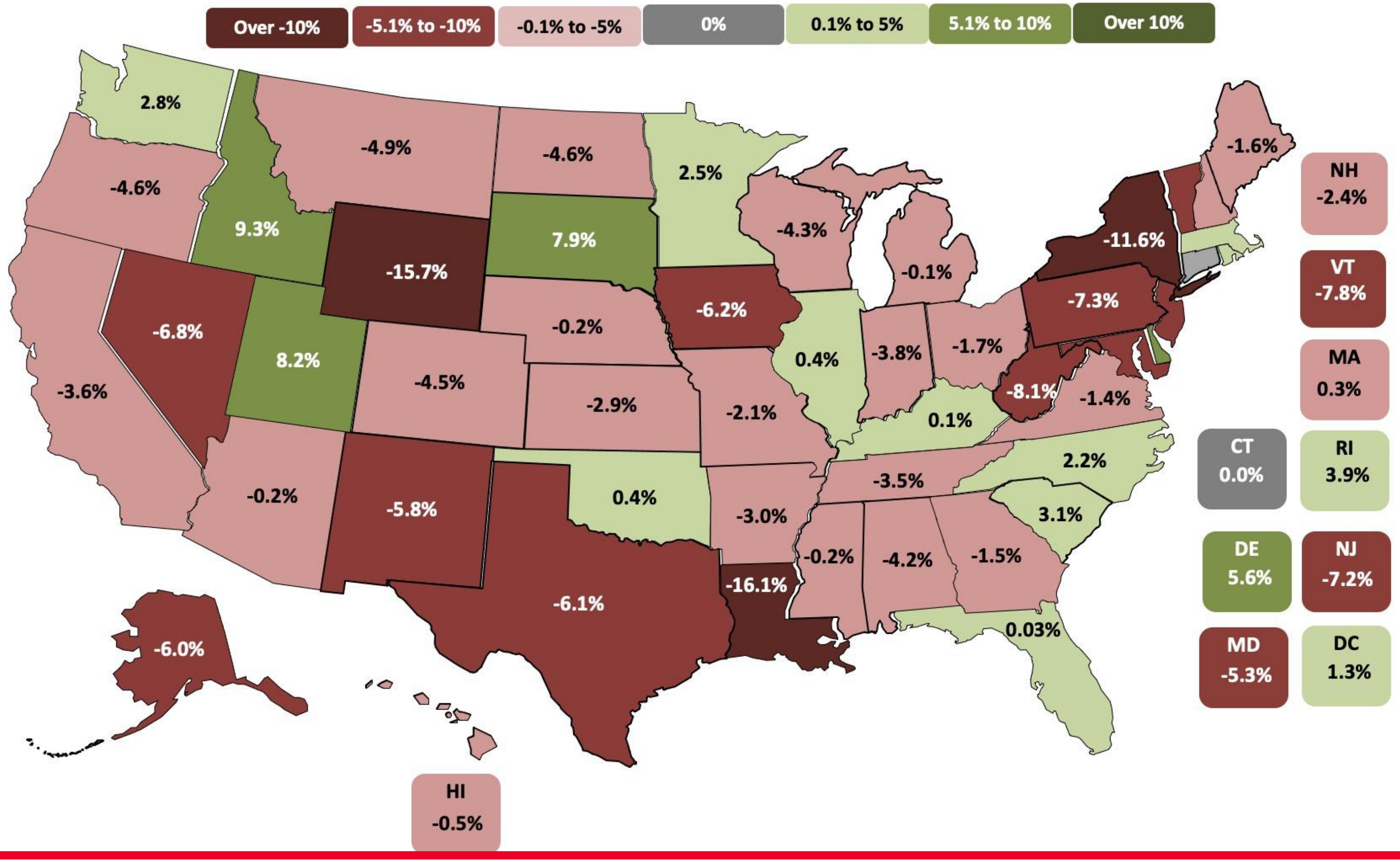


Top 5

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

Bottom 5

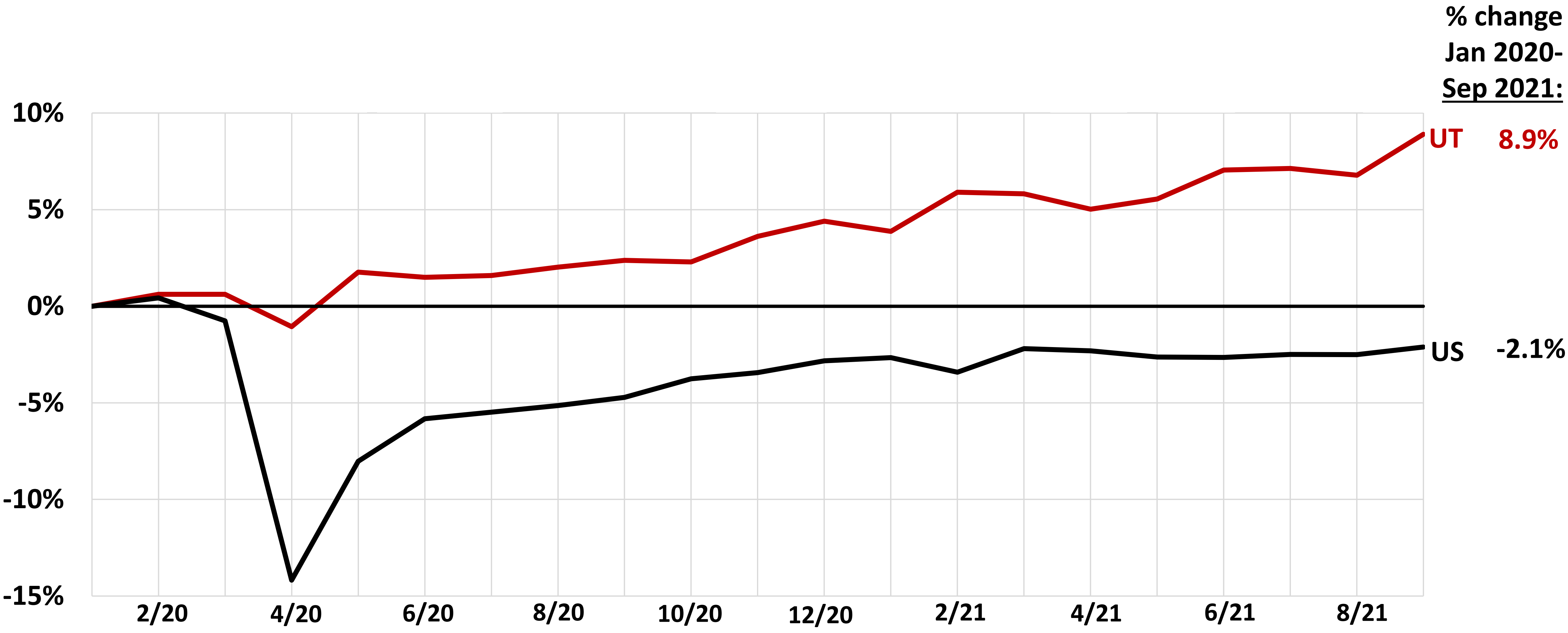
Louisiana	-16.1%
Wyoming	-15.7%
New York	-11.6%
West Virginia	-8.1%
Vermont	-7.8%

Note: Shading based on unrounded numbers

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

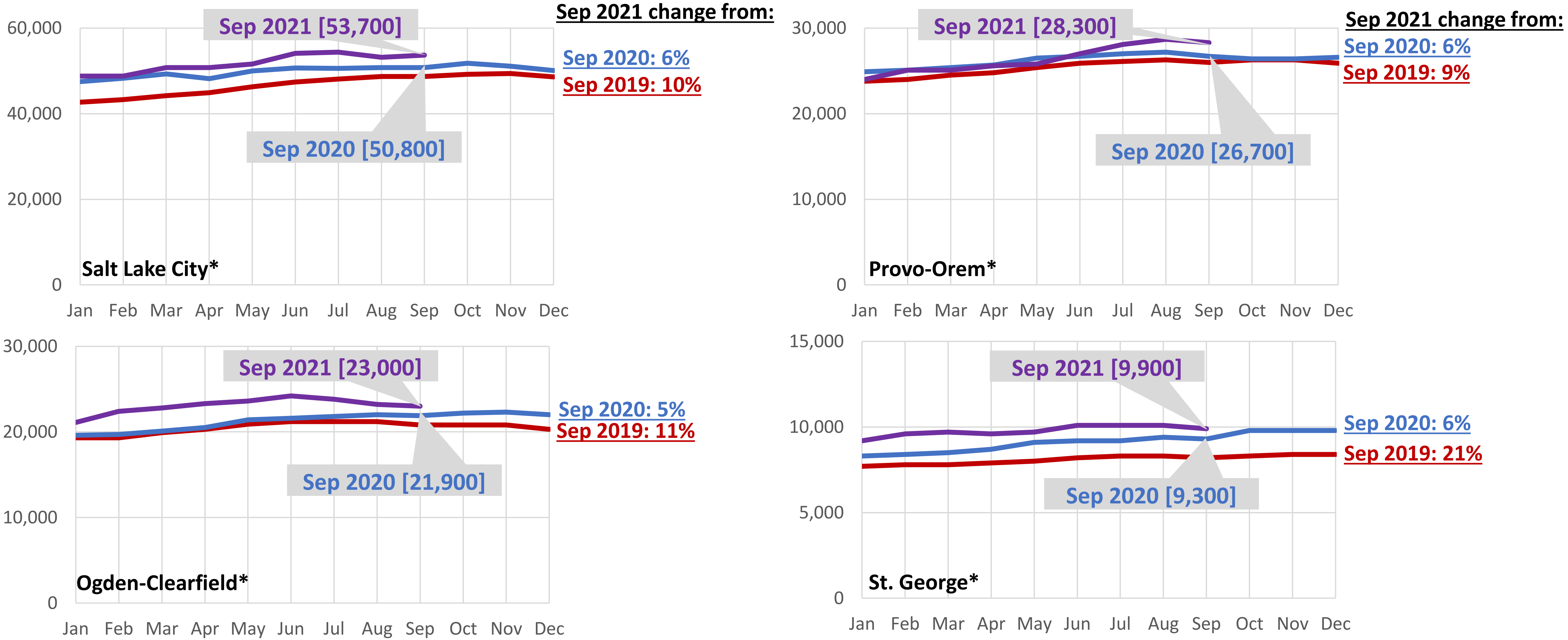
US & UT Construction Employment

Cumulative change, Jan 2020-Sep 2021, seasonally adjusted



Source: BLS

Utah Metro Area Construction Employment
January 2019–September 2021, not seasonally adjusted



Source: BLS **The Bureau of Labor Statistics reports employment for construction, mining and logging combined for metro areas in which mining and logging have few employers. Construction-only employment change is shown for a metro if BLS posts that data.*

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

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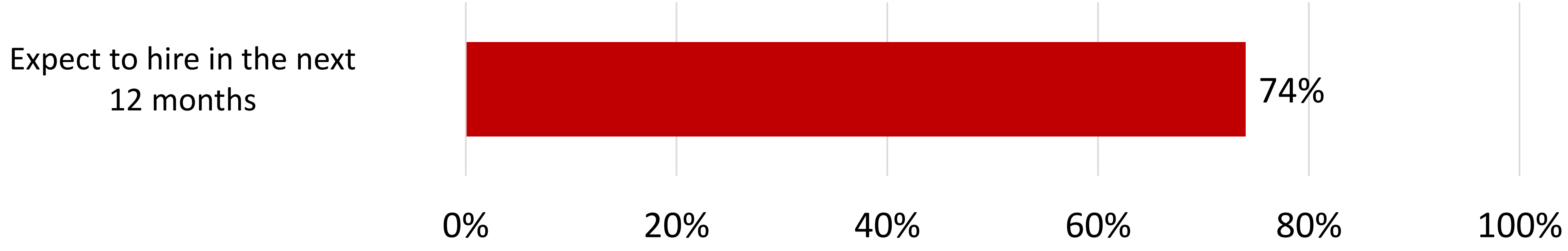
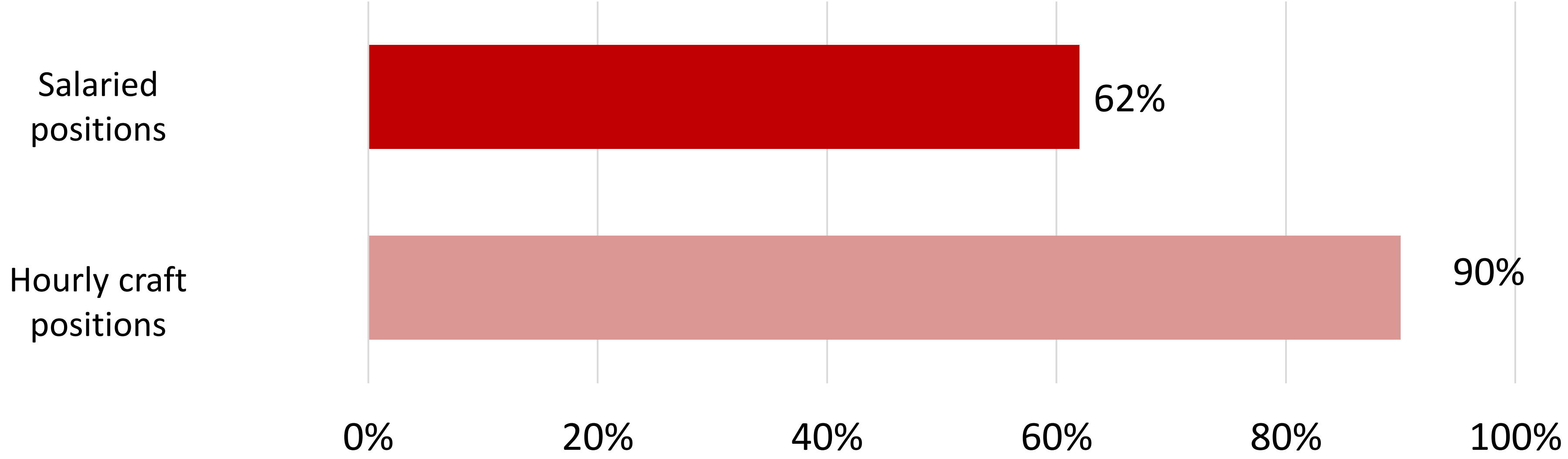
Hiring expectation



Need to fill open positions



Source: 2021 AGC Workforce Development Survey

2021 AGC Workforce Survey Results

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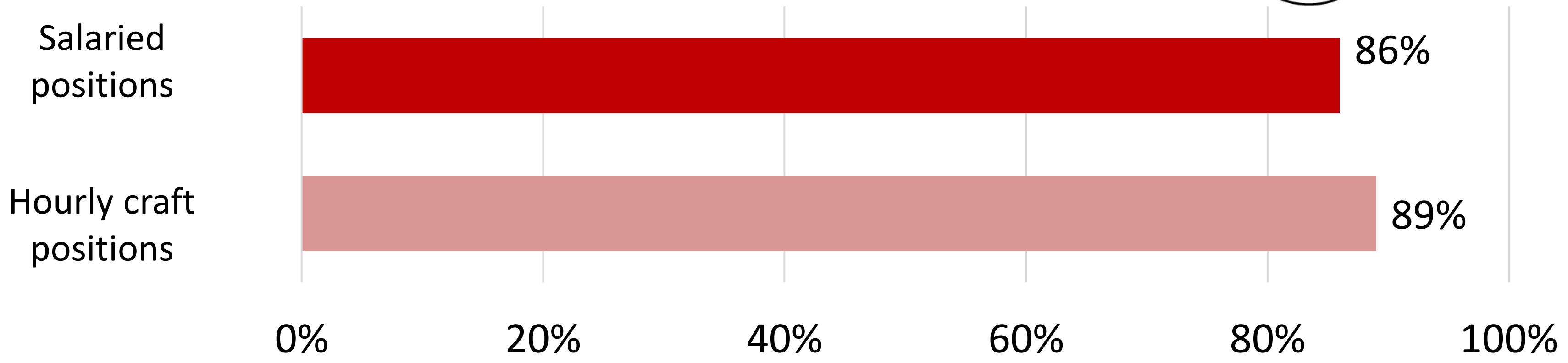
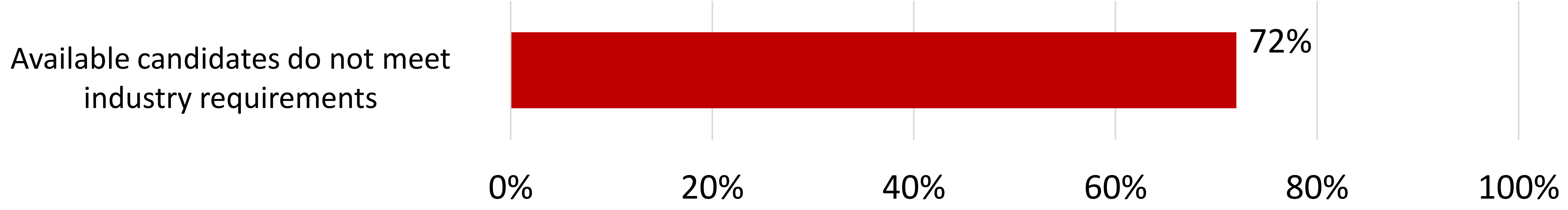
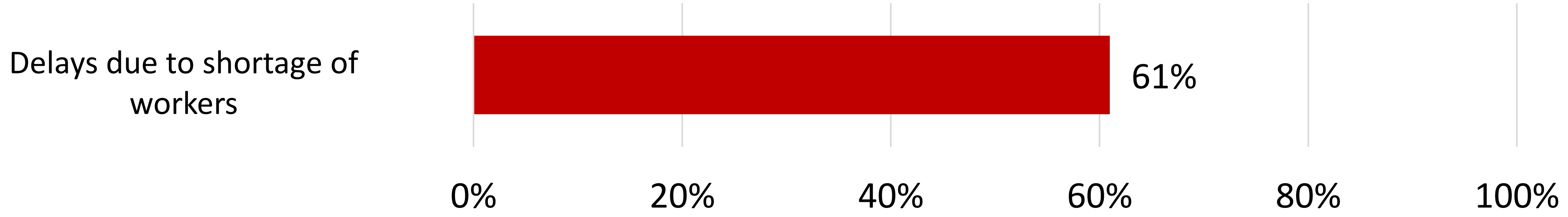
We are having a hard time filling some or all positions



Difficulty finding quality workers



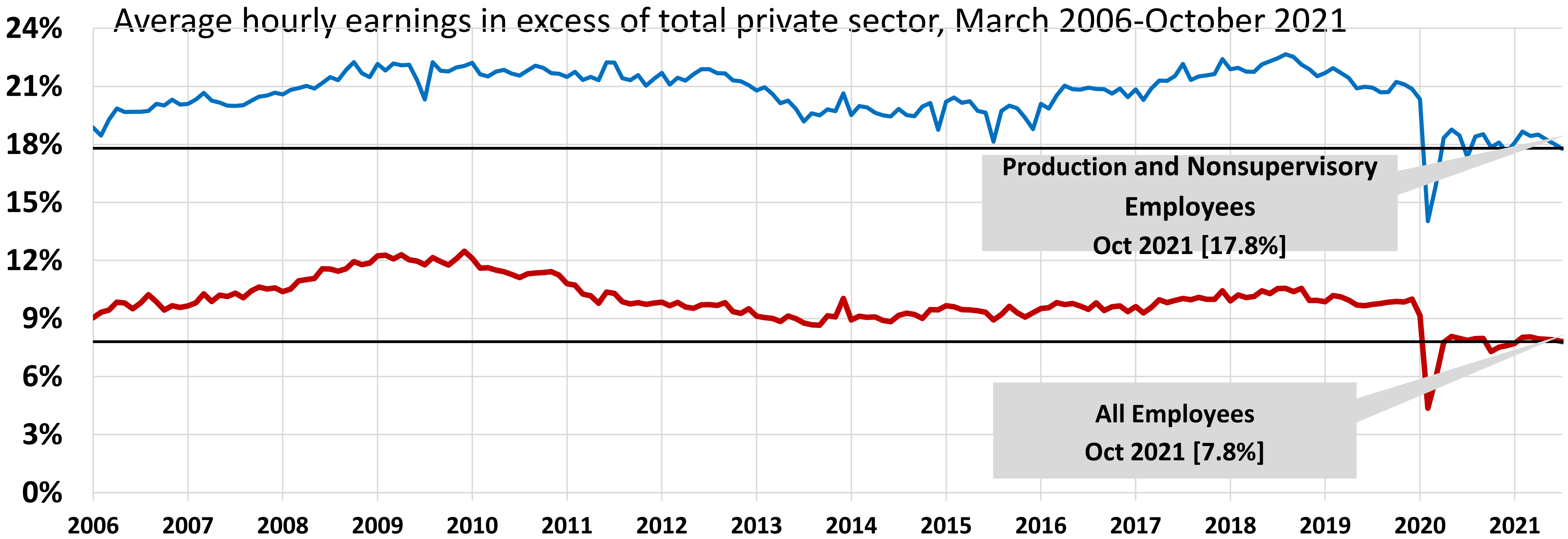
Construction delays



Source: 2021 AGC Workforce Development Survey

2 concerns about construction worker supply

- Low vaccination rate: 53% for construction workers, 81% for other occupations
- "Premium" for construction wages relative to total private sector has shrunk
  - From 20-23% pre-pandemic to <18% for production & nonsupervisory employees
  - From 9-12% pre-pandemic to <8% for all employees



Sources: vaccine data from CPWR, www.cpwr.com; wages from BLS, www.bls.gov/ces

Year-to-date construction spending: Jan-September 2021 vs. Jan-September 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 -October 2021 (not seasonally adjusted)

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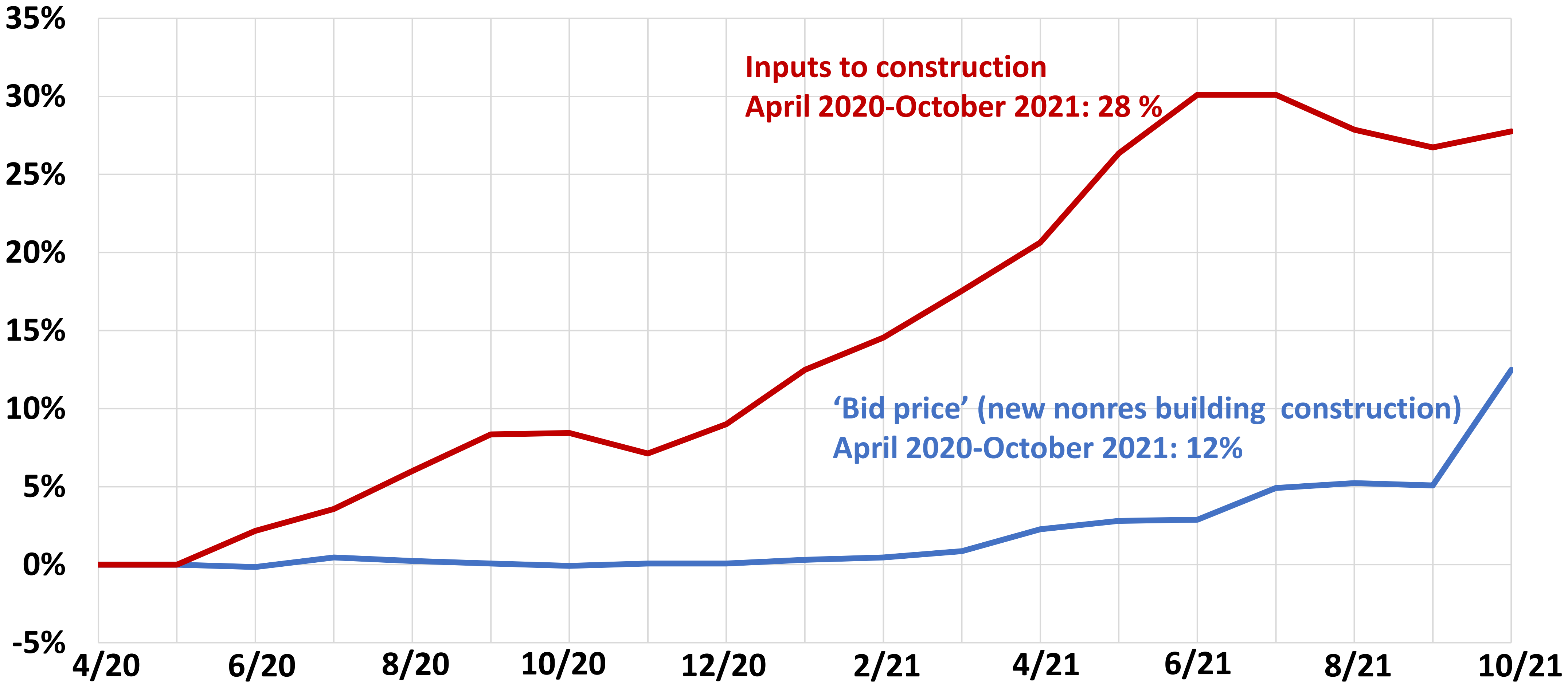
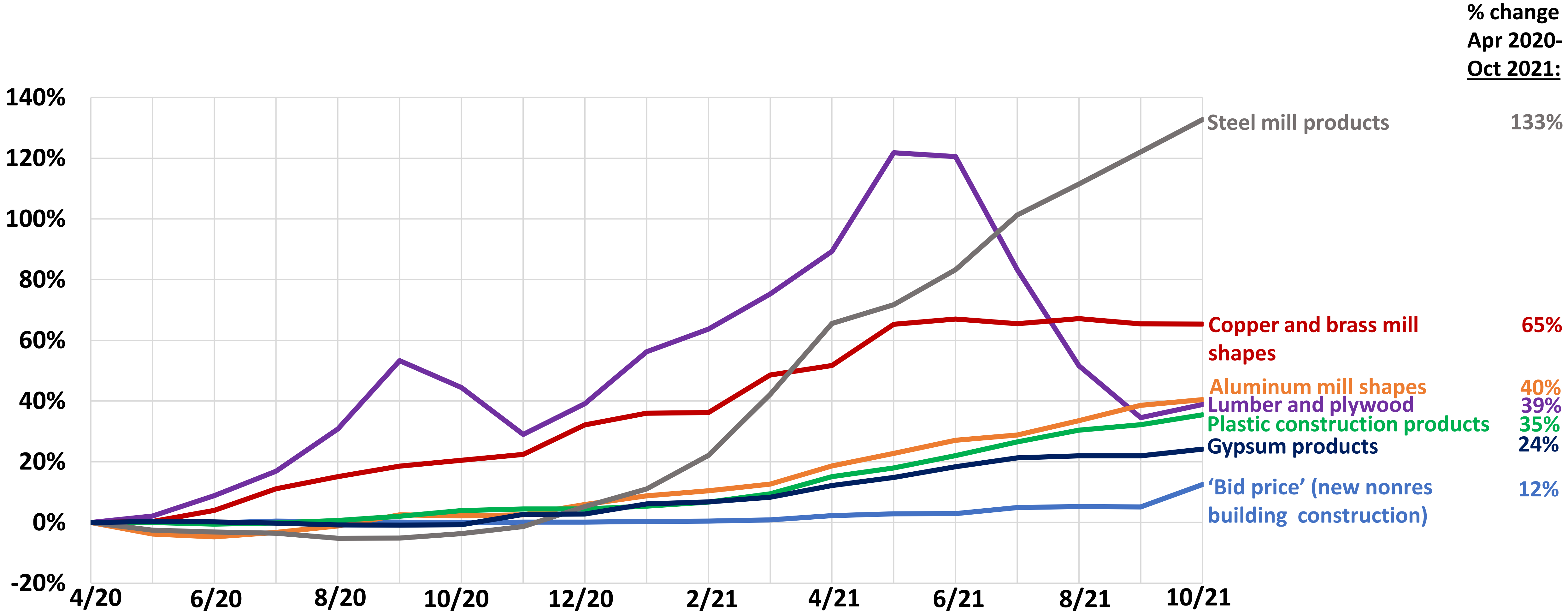


 Source: Bureau of Labor Statistics, producer price indexes, www.bls.gov/ppi

PPIs for construction and selected inputs

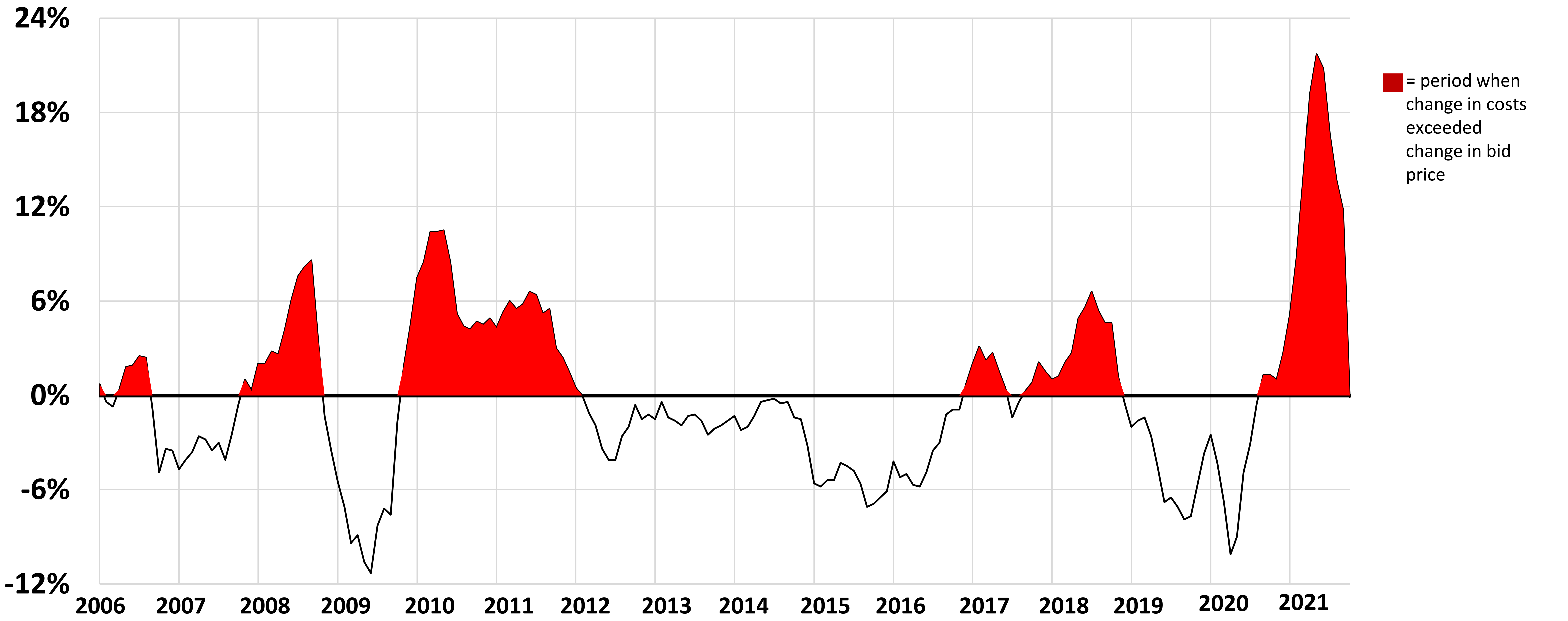
cumulative change in PPIs, April 2020 -October 2021 (not seasonally adjusted)



 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-Oct 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)

AGC's responses to material cost and supply-chain issues

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- *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/
- Recording of webinar on "Soaring Material and Supply-Chain Costs and Delays": https://store.agc.org/Store/CSI/Store/Product_List_WebEds.aspx
- Presentations to government contracting officials and owner groups
- Lobbying for tariff relief on lumber, steel, aluminum, and products
  - Presentation to National Economic Council, VP's chief economist, Commerce chief economist
  - Presentations in coalitions to counselor to Commerce secretary, Senate & House trade staff

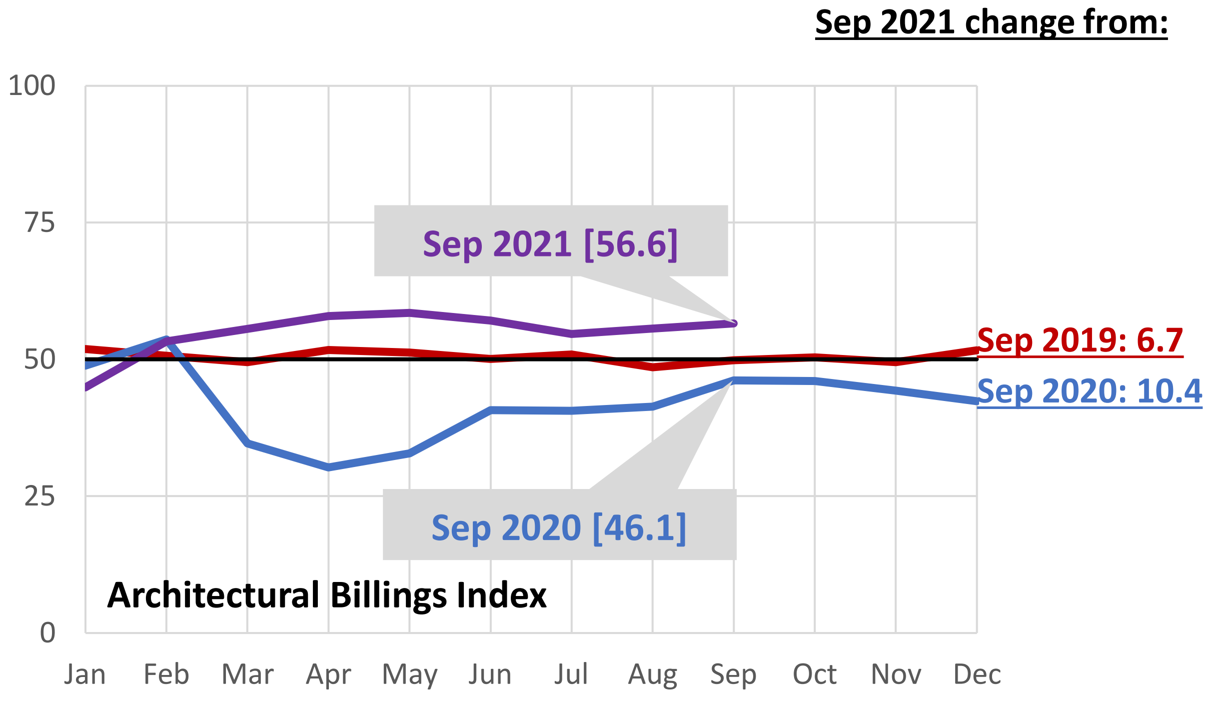
 Source: Author

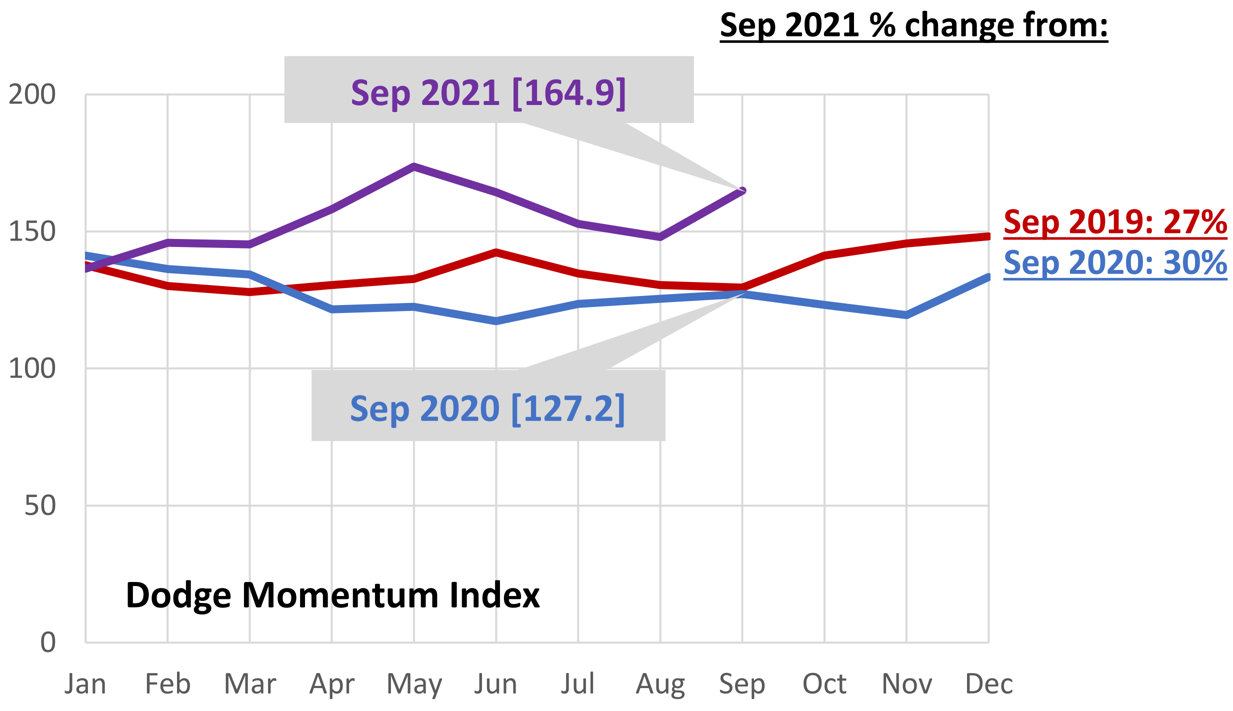
Forward-looking indicators

Indicator	Latest date	Current value	Year-ago value
Architecture Billings Index (ABI)	Sept.	56.6	46.1
Dodge Momentum Index (DMI)	Oct.	181	123
Multifamily permits not yet started	Sept.	103,000	72,000

Source: American Institute of Architects (ABI), Dodge Data & Analytics (DMI), Census Bureau (New Residential Construction)

Architecture Billings and Dodge Momentum Indexes
January 2019–September 2021, seasonally adjusted





Source: American Institute of Architects (ABI) Dodge Data & Analytics (Dodge Momentum Index)

Medium-term impacts as recovery begins

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- 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

Source: Author

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

Source: Author

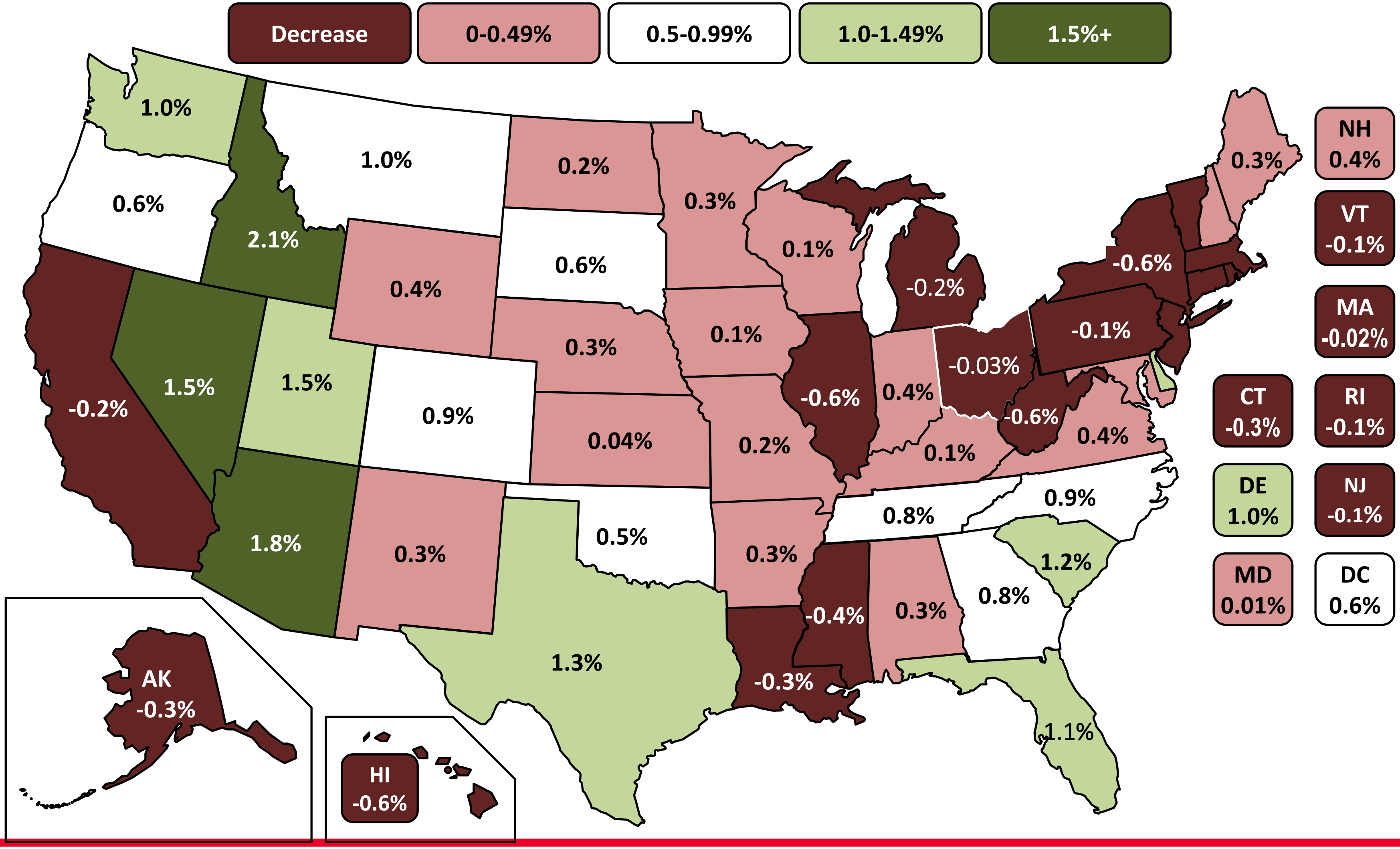
Population change by state, July 2019–July 2020 **(U.S.: 0.35%)**

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%



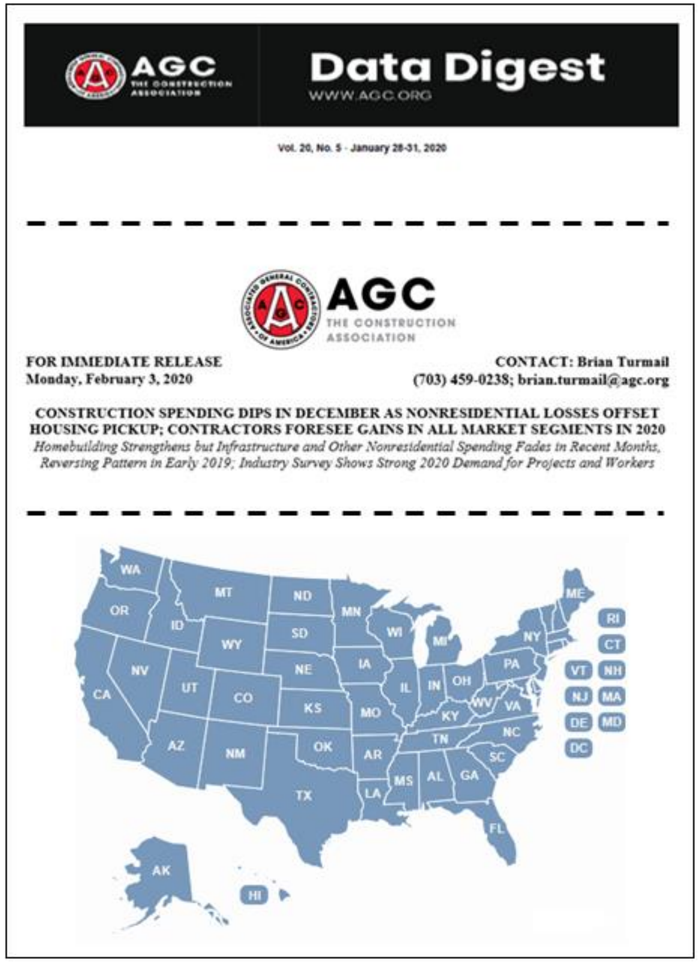
Source: U.S. Census Bureau, Dec. 2020 estimates, www.census.gov/popest

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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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

Source: Author