



Power & Communications Industry Update

March 2022

fmicorp.com



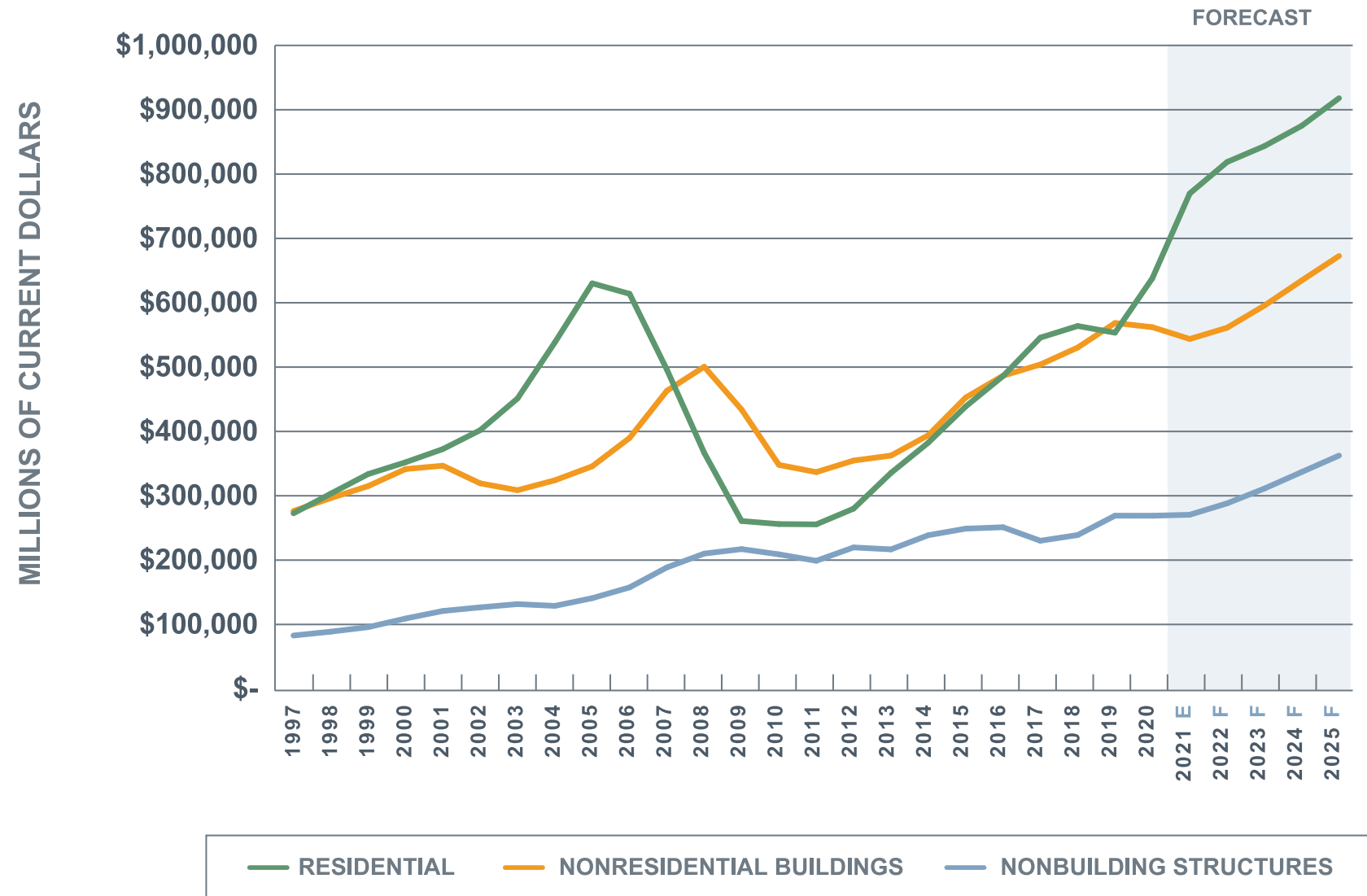
Four Takeaways



- PCCA markets continue to be among the BEST of the built environment
- We are NOT returning to the same pre-Covid economy
- Our near-term outlook is a paradox: “LESS FOR MORE”
- Our long-term outlook is pretty AWESOME, but requires SOLUTIONS

A Macro View of U.S. Construction Spending

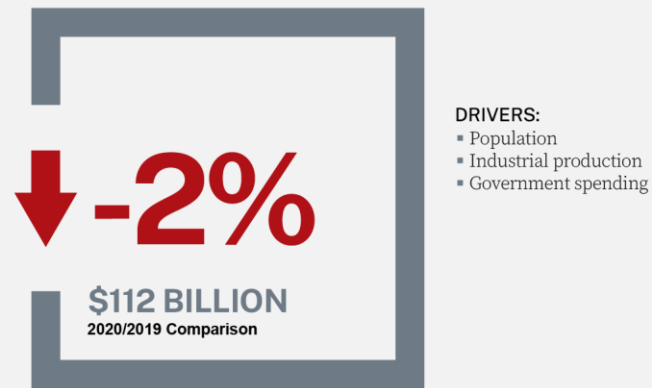
Total Construction Spending Put in Place Estimated for the U.S.



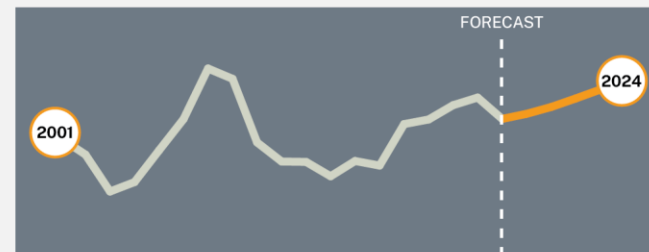
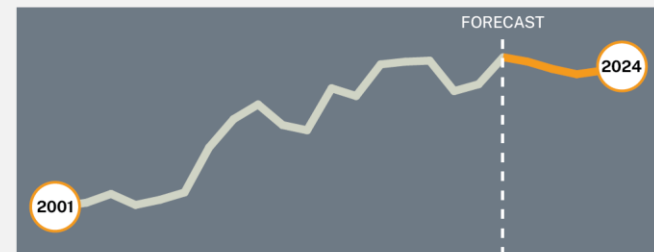
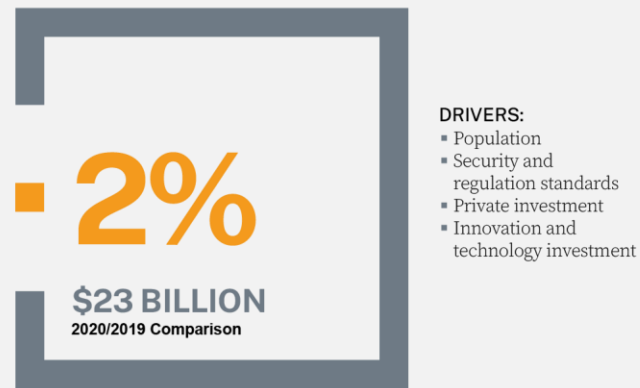
Well.... How did we do?

Forecast Last Year

POWER



COMMUNICATIONS

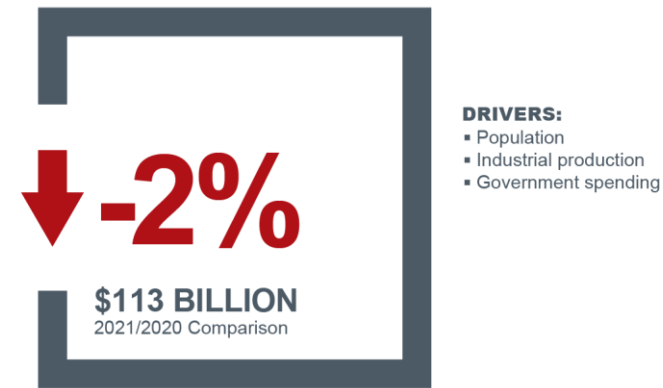


2021	DWN	-3%	\$108 B
2022	DWN	-3%	\$105 B
2023	STA	2%	\$107 B
2024	STA	4%	\$111 B

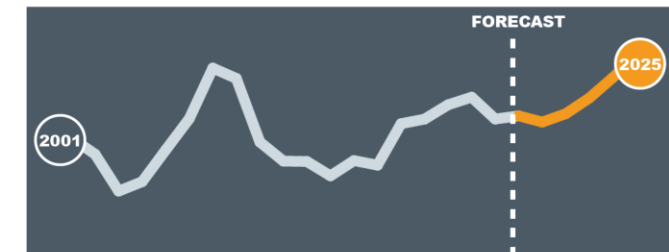
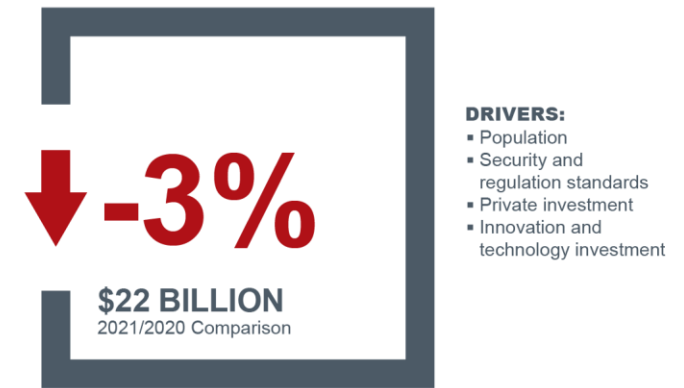
2021	STA	3%	\$24 B
2022	STA	4%	\$24 B
2023	STA	4%	\$25 B
2024	STA	4%	\$26 B

Updated Forecast

POWER



COMMUNICATIONS



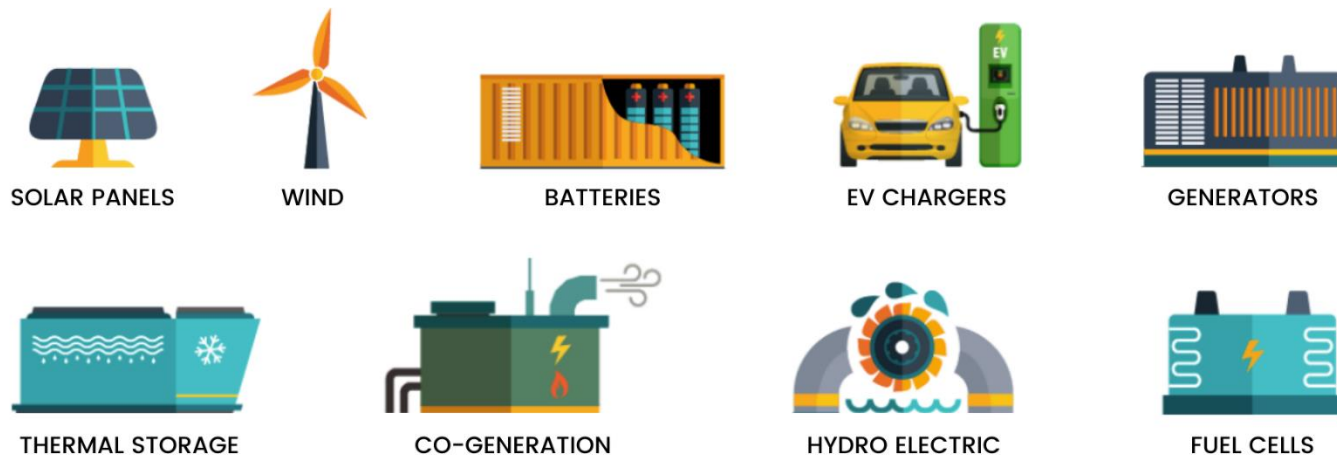
2022	UP	6%	\$119 B
2023	STA	3%	\$123 B
2024	STA	4%	\$127 B
2025	UP	5%	\$133 B

2022	STA	4%	\$23 B
2023	UP	7%	\$24 B
2024	UP	9%	\$27 B
2025	UP	9%	\$29 B

Electrification of Everything + Fiber to Everywhere

20+ Year Energy Themes

- Decentralization
- Decarbonization
- Digitization



10+ Year Communication Themes

- Digital DEI
- Fiber to the Premise
- 5G/C-Band Deployment



The Current Market is Frustrating!

Water, water,
everywhere,
nor any drop
to drink

Coleridge

- Not one more crew?!
- “How much did you say?”
- Pro [union] labor administration
- IIJA means more gas on the fire

Recurring Conversations

- Largest project backlog in memory, but margins are under pressure
- We need to find more people
- Strong demand, but record lead times and frustrated customers
- Why are our customers so slow ... on everything?
- Equipment and material prices are rising faster than ever
- How are we supposed to price this?
- We have a great culture, but it's hard to keep our best people
- Which way will political winds blow this Fall or the next election?

Headwinds Facing PCCA Associate and Contractor Members

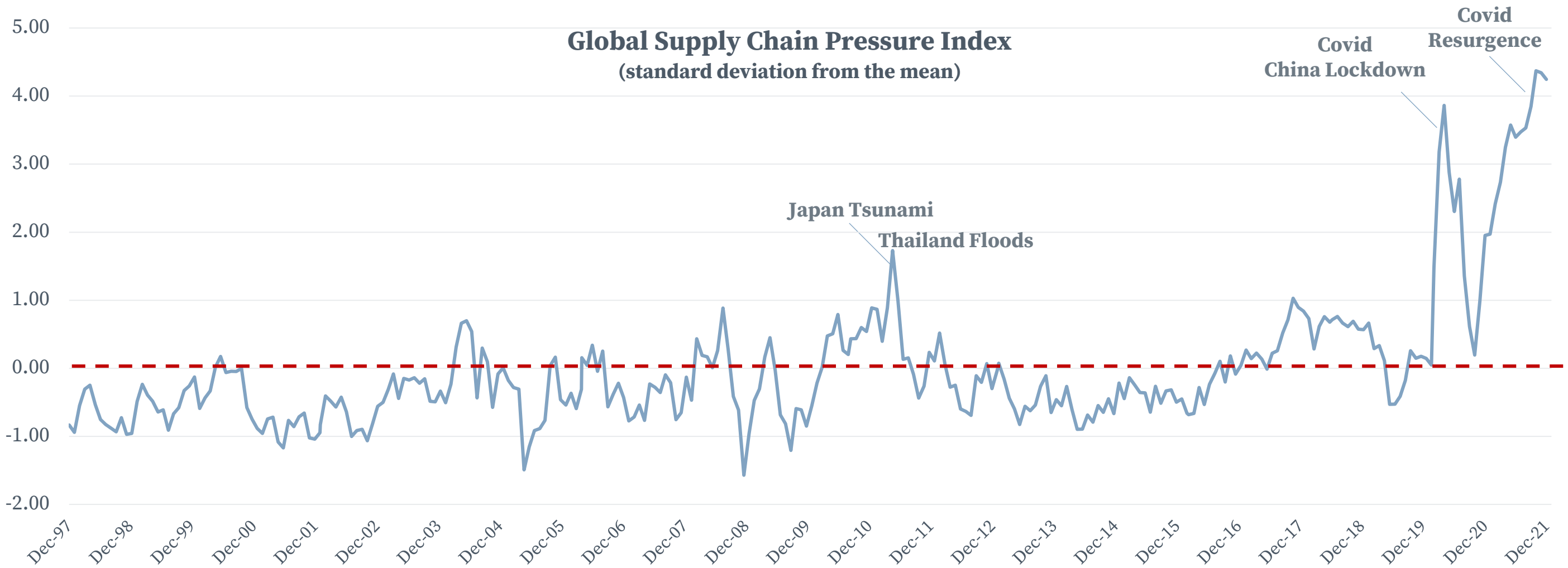


- Supply
- Workforce
- Regulation
- Inflation
- Uncertainty

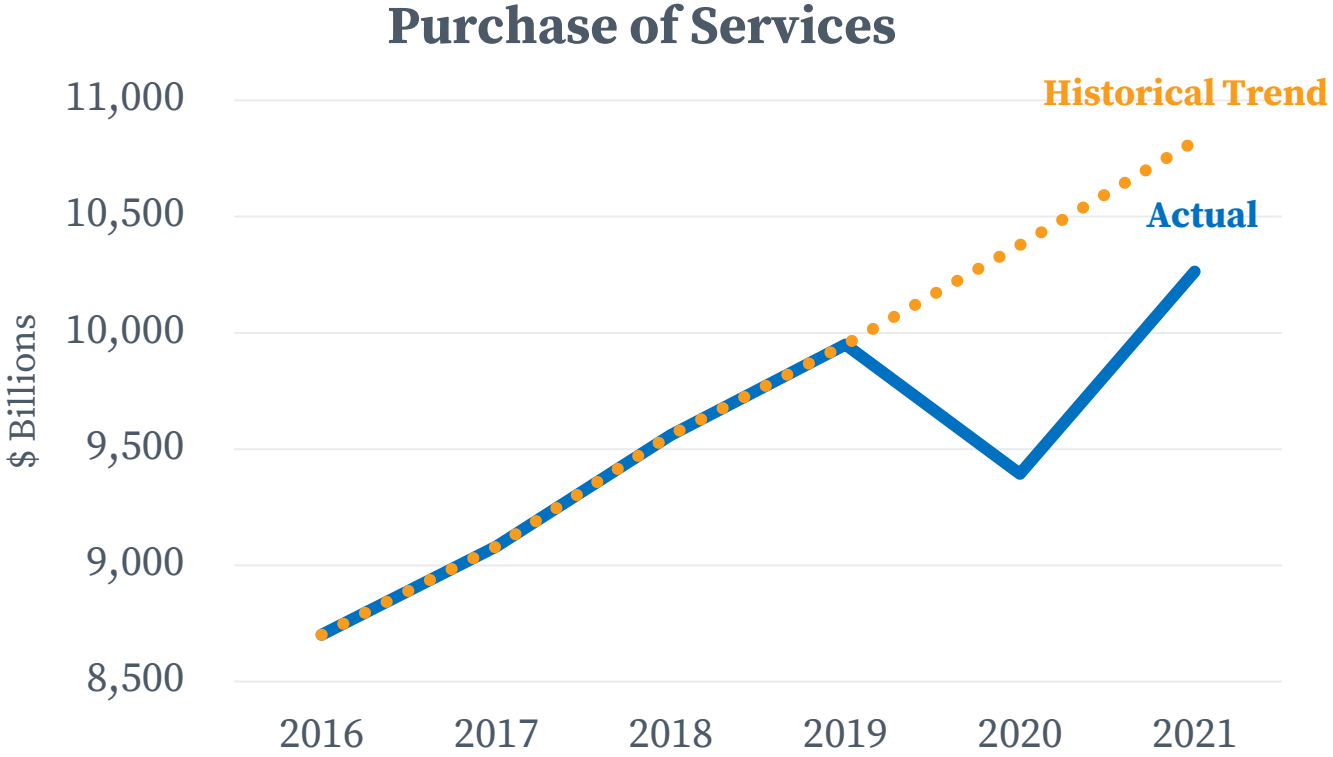
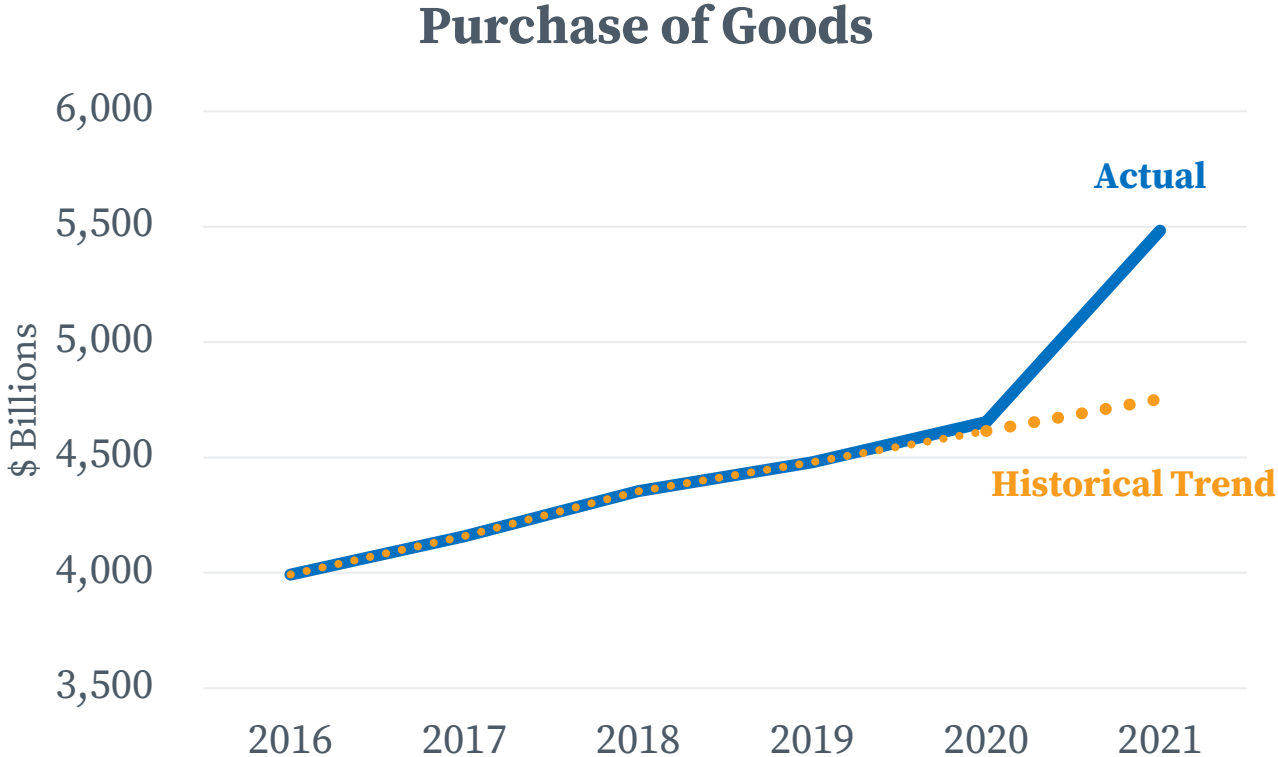


Supply

Supply Chains are Under Record Stress



Dramatic Shift in Personal Consumption Expenditures

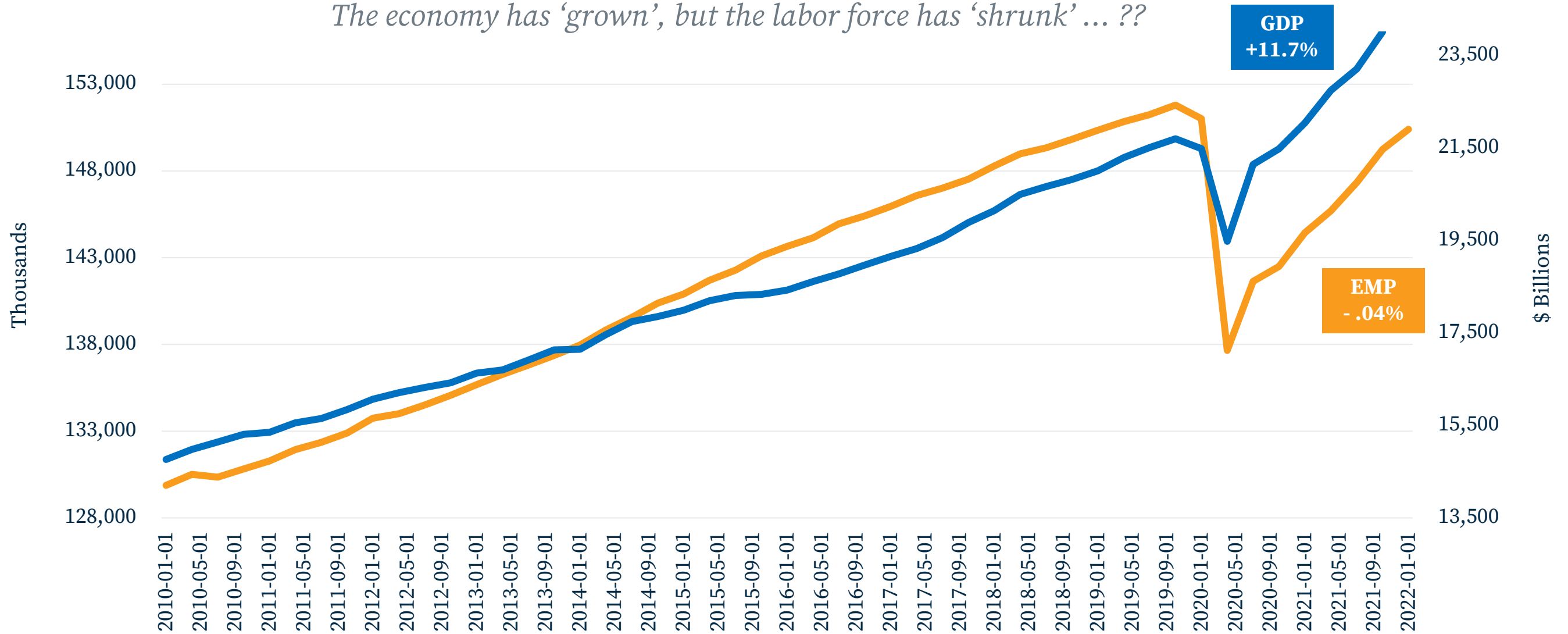




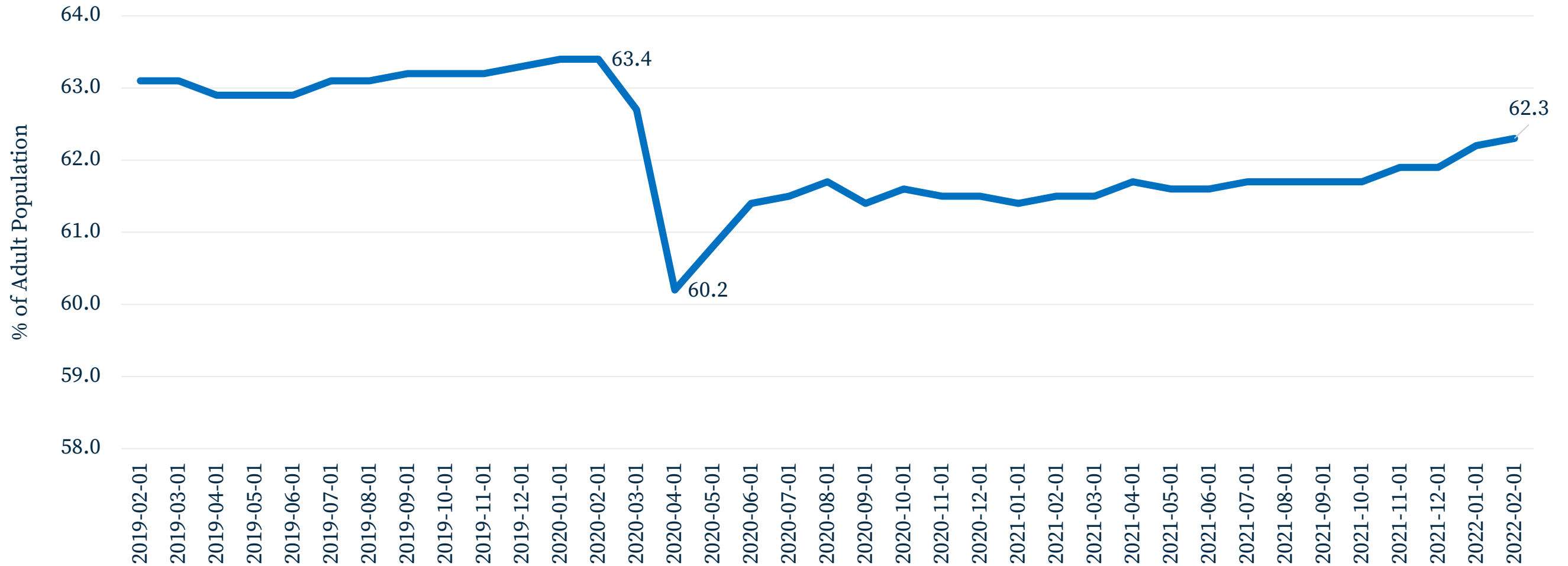
Workforce

GDP vs. Labor Growth (quarterly average)

The economy has 'grown', but the labor force has 'shrunk' ... ??



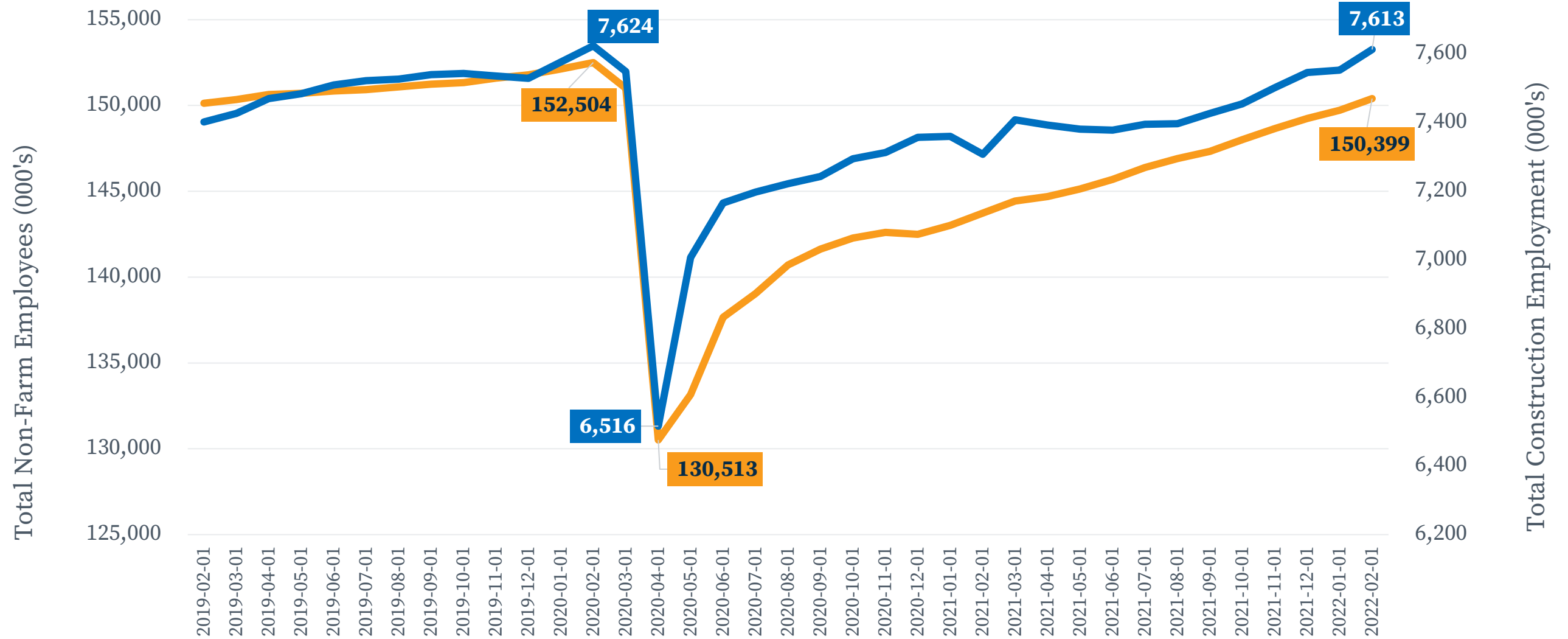
Labor Force Participation Rate (%)



Workers who left and have not returned to the labor force are not prime for our industries

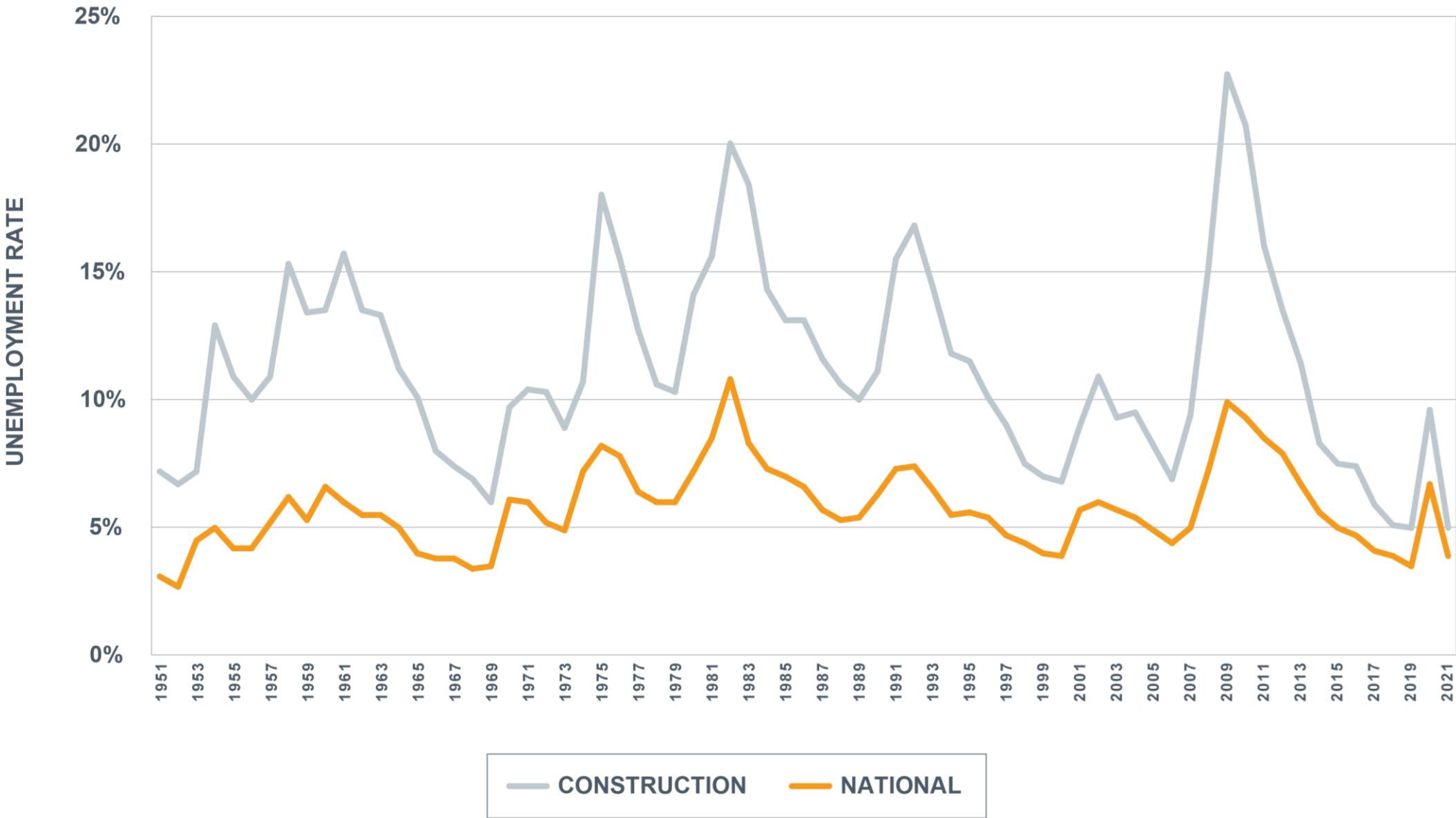
Total Non-Farm Employment vs. Construction Employment

the U.S. Labor Force is still down 2.1 million two years later



Construction Unemployment is at All Time Low

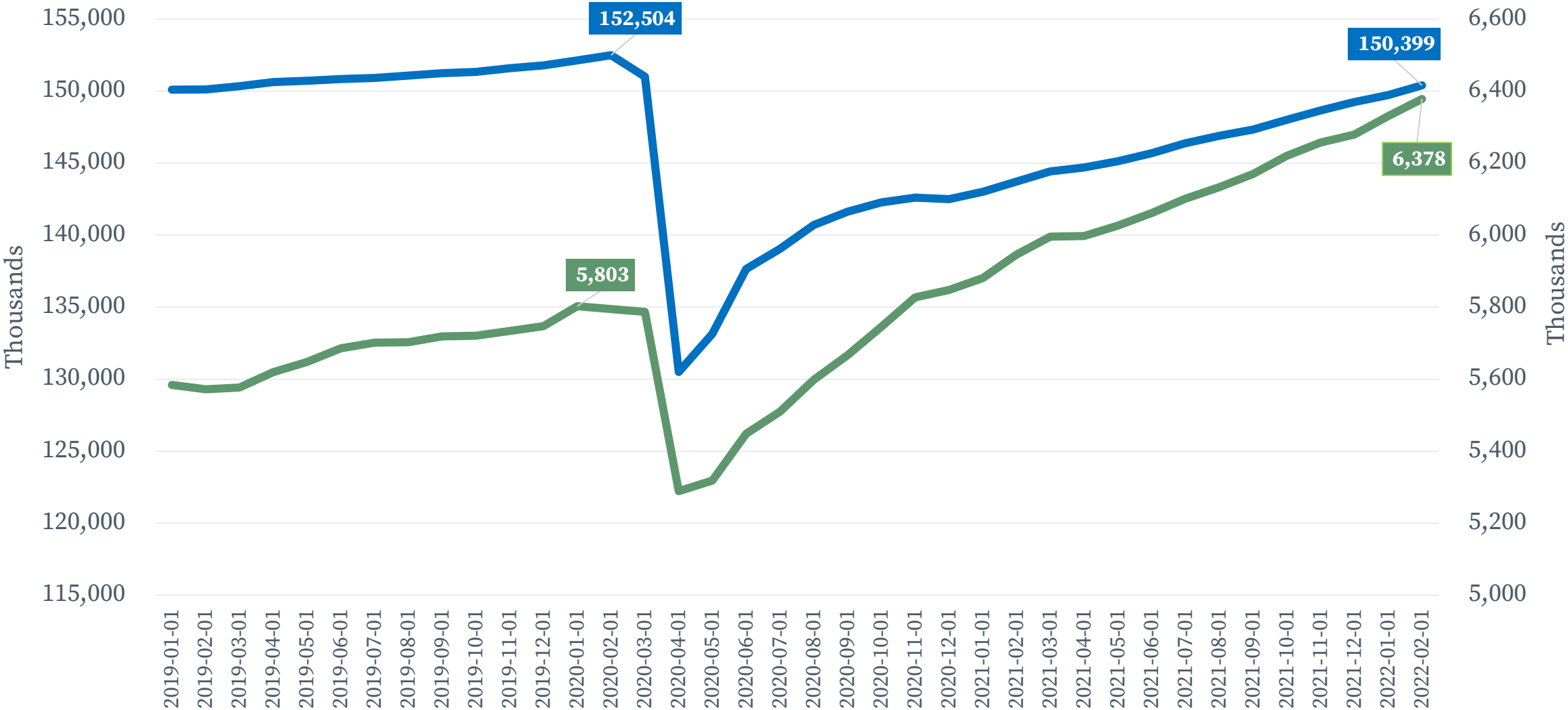
Construction Unemployment vs. National Unemployment



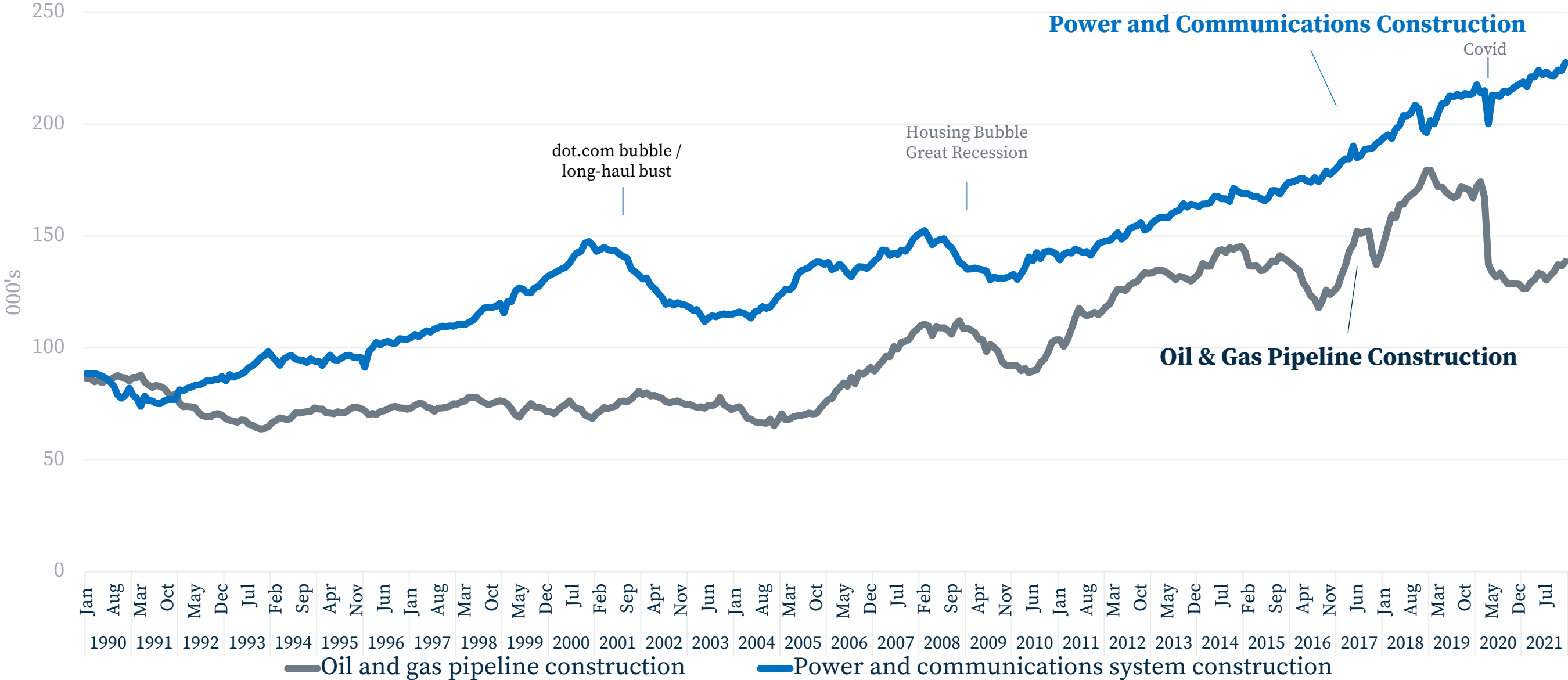
SOURCE: U.S. DEPARTMENT OF LABOR | ANNUAL - END PERIOD

Transportation & Warehousing Gain

575,000 more people work in Transportation & Warehousing than pre-Covid



Power & Communications Construction Employment



SOURCE: BUREAU OF LABOR STATISTICS

How Do We Solve This?

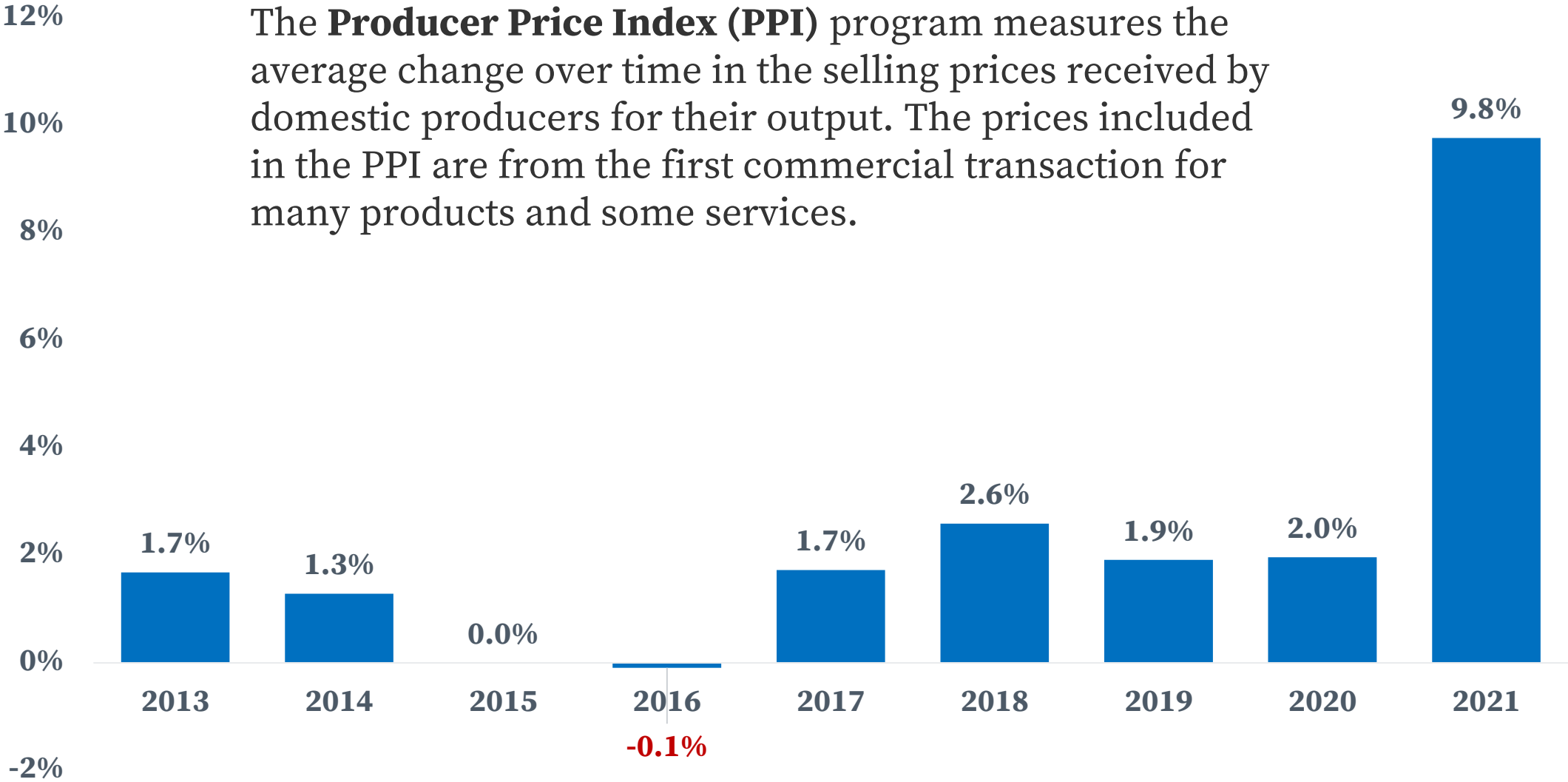


- Workforce Development
- Common Sense Immigration Reform
- Universal Pre-K / Extended Hours
- Diversity, Equity and Inclusion
- Organized Labor (Administration Priority)
- Automation and Robotics
- Offsite / Prefab
- The Metaverse? (not really)

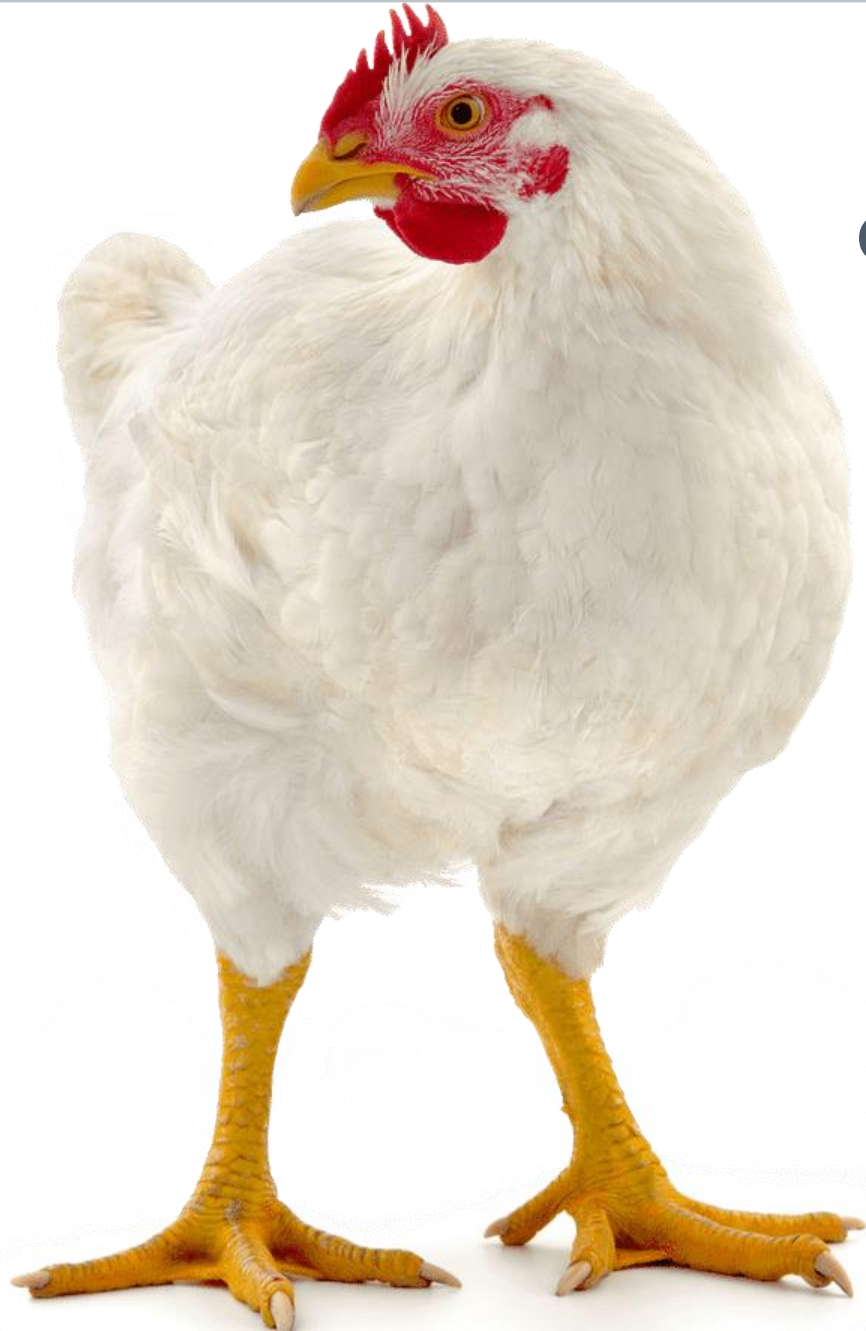


Inflation

Producer Price Index: Annual % Change (Jan to Jan)



When Higher Volumes Don't Necessarily Help



$$\text{Contribution Margin} = \text{Selling Price} - \text{Variable Cost}$$



- Lump Sum
- Unit Price
- Cost Plus
- T&M



- Materials
- Transport
- Labor
- Equipment
- Fuel

Rules, Regulations and Funding



Who Came to Dinner Last Night in Delaware?

Executive Order: 14025 - White House Task Force on Labor Organizing:

“The Task Force and its members shall identify executive branch policies, practices, and programs that could be used, consistent with applicable law, to promote my Administration’s policy of support for worker power, worker organizing, and collective bargaining.”

All components of the Biden-Harris administration advocate for organized labor

All components of the Biden-Harris administration, including the President, Vice President, and Cabinet, should talk about the importance of the federally-protected right of workers to organize and bargain, and the benefits to workers, employers, and communities of collective bargaining. The Labor Department should assist with these efforts. This could include public service announcements by the President, Vice President, Secretary of Labor, and other high-ranking officials and videos by these officials for labor agency websites.

Use Department of Labor resources to advocate for organizing

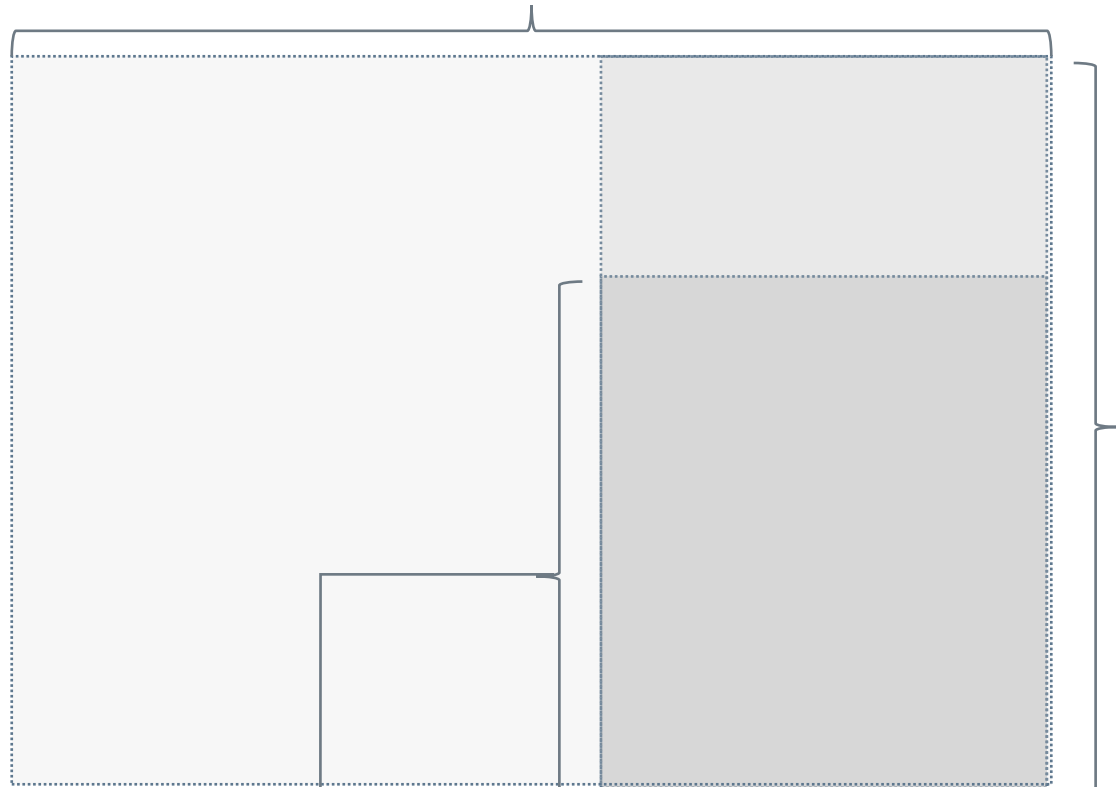
Instruct the Department of Labor to create a resource center for workers, employers, the public, and other government agencies, on the benefits of unionization and labor-management partnerships to workers, employers, and communities, and, subject to available funds and authorities, to explore establishing a new office, center, or initiative to provide greater visibility to this activity. DOL, in consultation with the National Labor Relations Board, the Federal Mediation and Conciliation Service, and other agencies, should develop materials on the rights to organize and collective bargaining...

Davis-Bacon Regulatory Reform: *Instruct the Department of Labor to continue to prioritize its review of its Davis Bacon and Related Acts regulations and, if appropriate, propose improvements to ensure that contractors pay the required prevailing wage.*

Broadband Grants: *Ensure National Telecommunications and Information Administration Broadband Grants Support Construction Jobs with Strong Labor Standards*

Biden's Original Request: American Jobs Plan (AJP)

\$2.7 Trillion over ~10 years
Total Spending



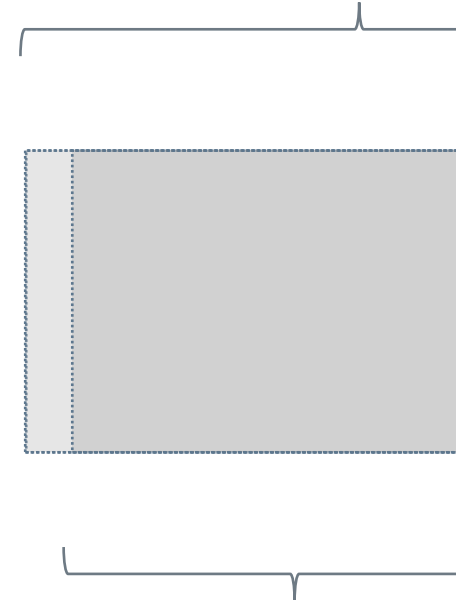
\$930 Billion
expected in CPIP
~35% of total
~80% of related

\$1.2 Trillion
construction-
related fields (43%)

Infrastructure Investment and Jobs Act (IIJA)

\$560 Billion in new spending
over ~ 6 - 8 years

Spending is 100% in construction-related fields

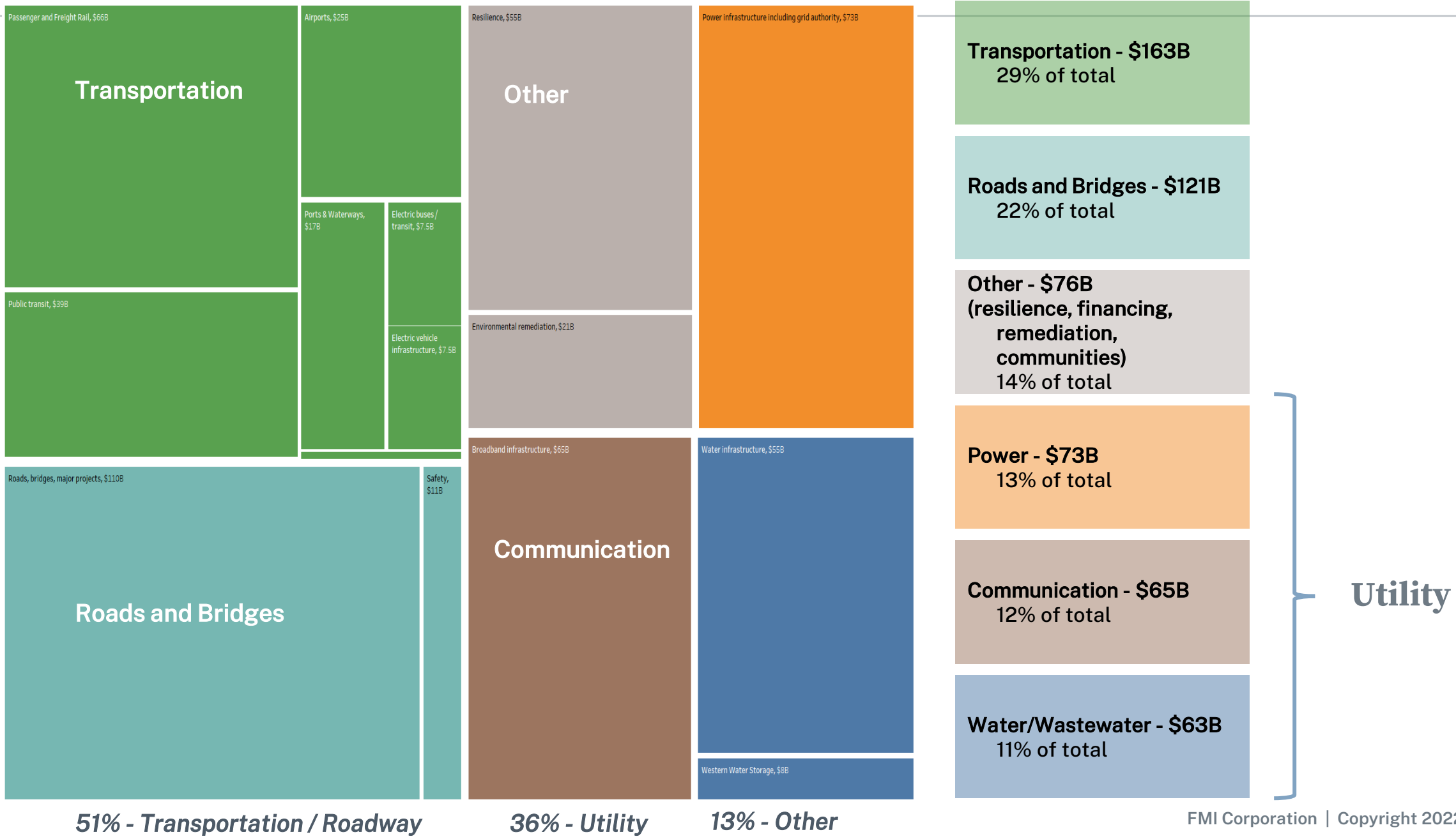


~90-95%
expected in CPIP

“The Framework [IIJA] is financed through a combination of closing the tax gap, redirecting unspent emergency relief funds, targeted corporate user fees, and the macro-economic impact of infrastructure investment.”

*New spending + baseline (over 5 years) = \$973B
*New spending + baseline (over 8 years) = \$1,209B

Infrastructure Investment and Jobs Act – \$560B New Spend

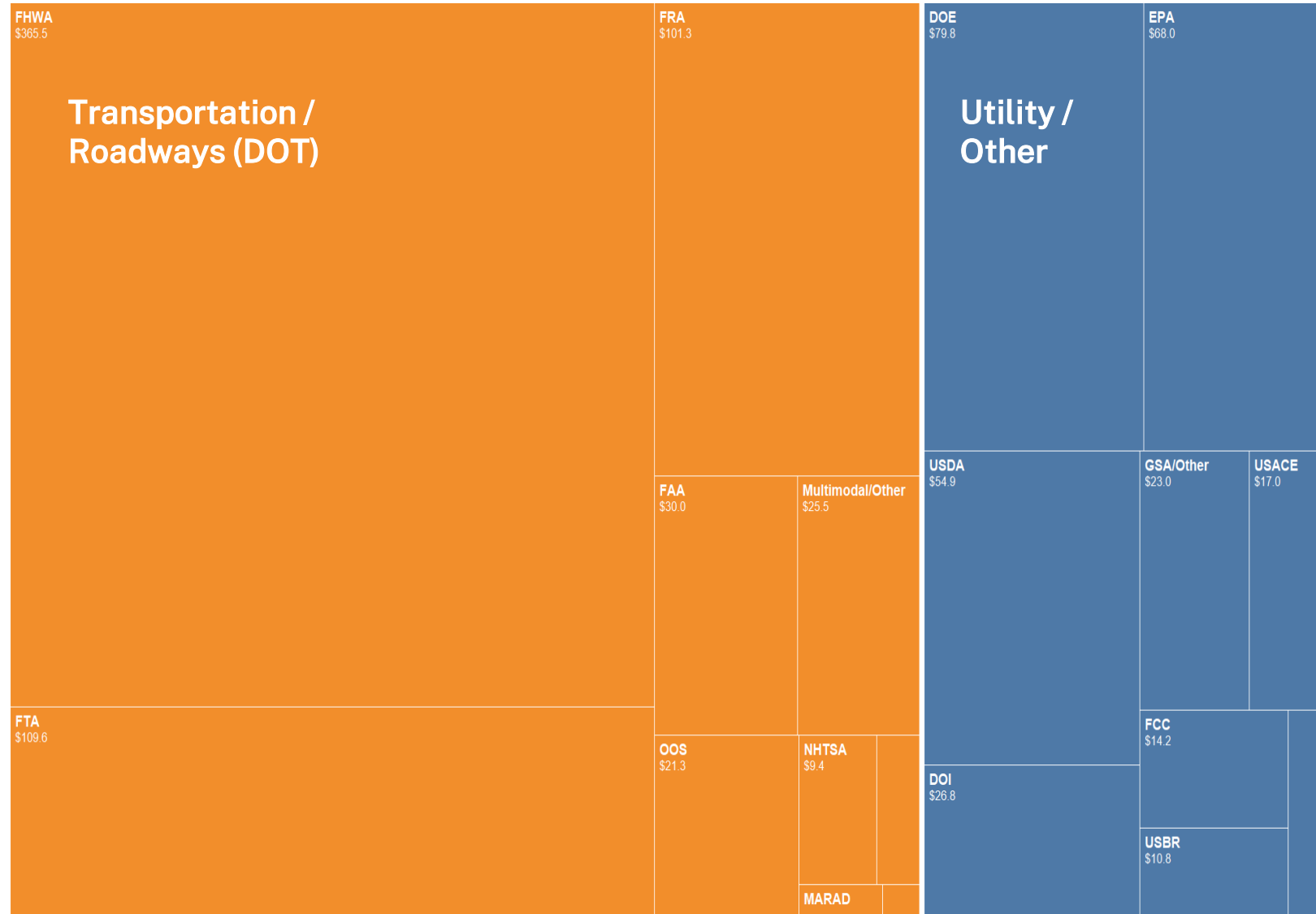


51% - Transportation / Roadway

36% - Utility

13% - Other

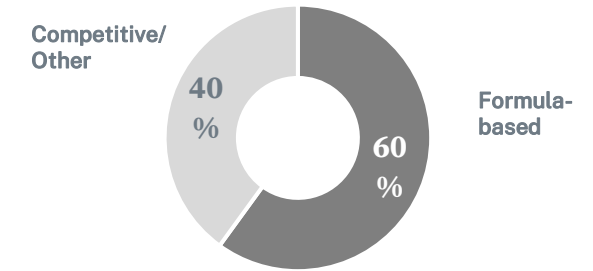
Total IJA Spend by Agency, 2022 –2026 (\$B)



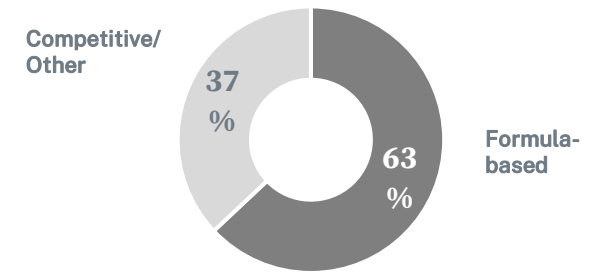
69% - Transportation / Roadway

31% Utility / Other

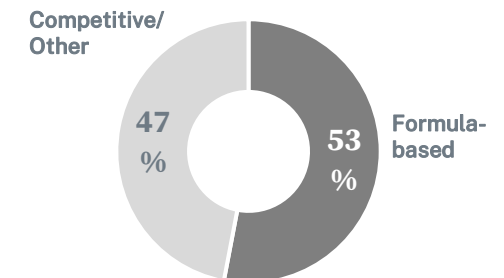
Total IJA Spending



Transportation / Roadway (DOT)

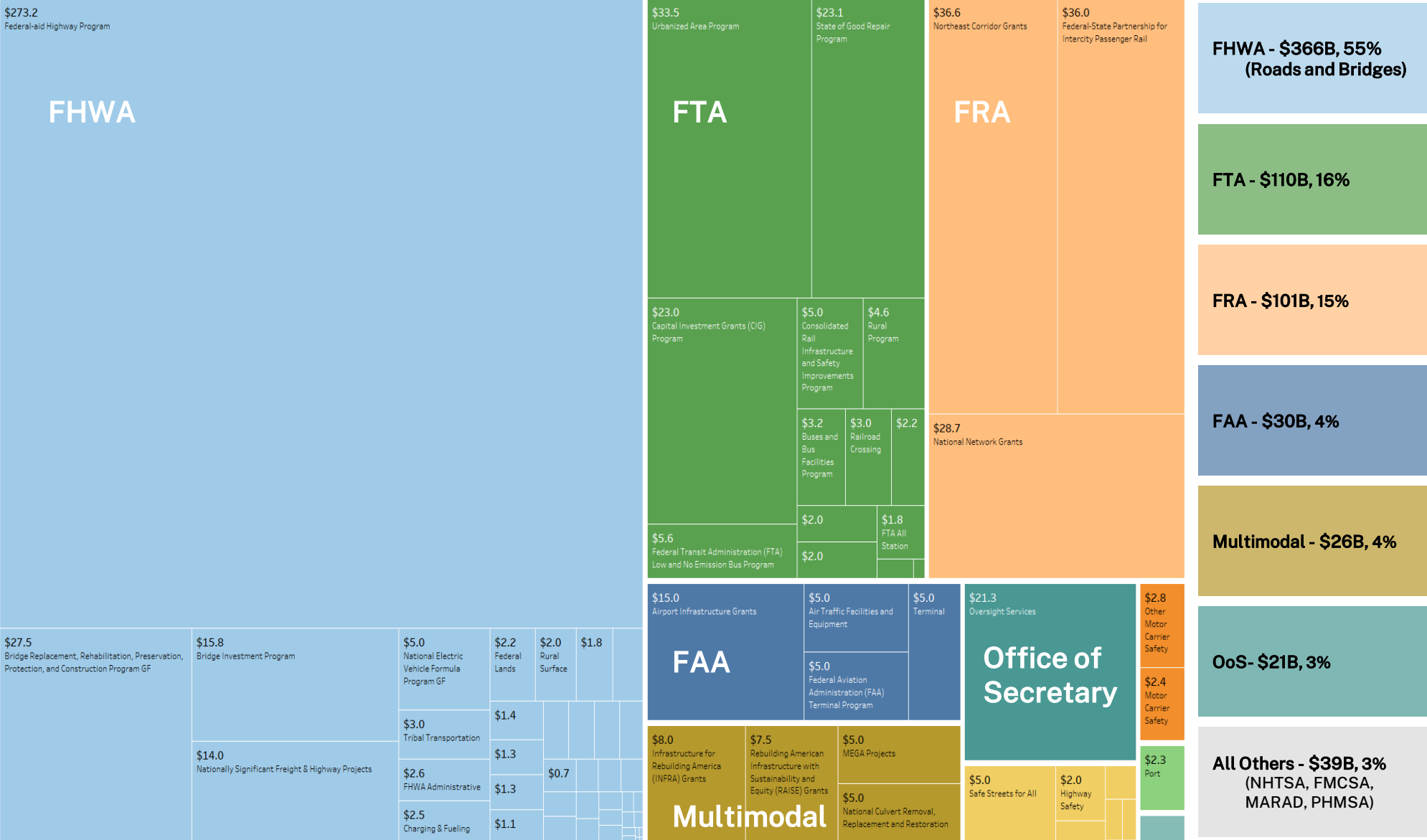


Utility / Other



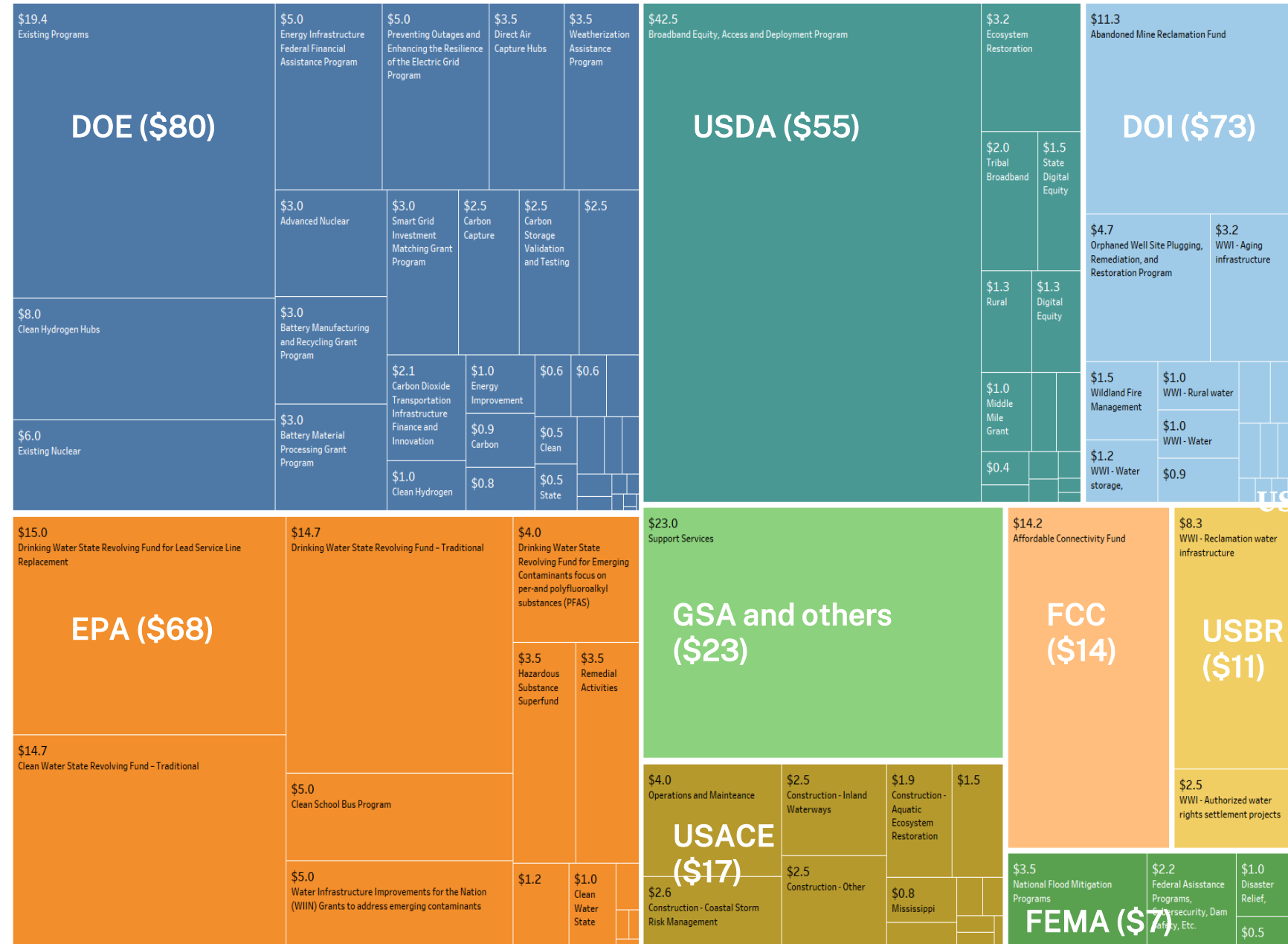
Bipartisan Infrastructure Investment and Jobs Act

Transportation / Roadway: Total 2022 – 2026 (\$B)



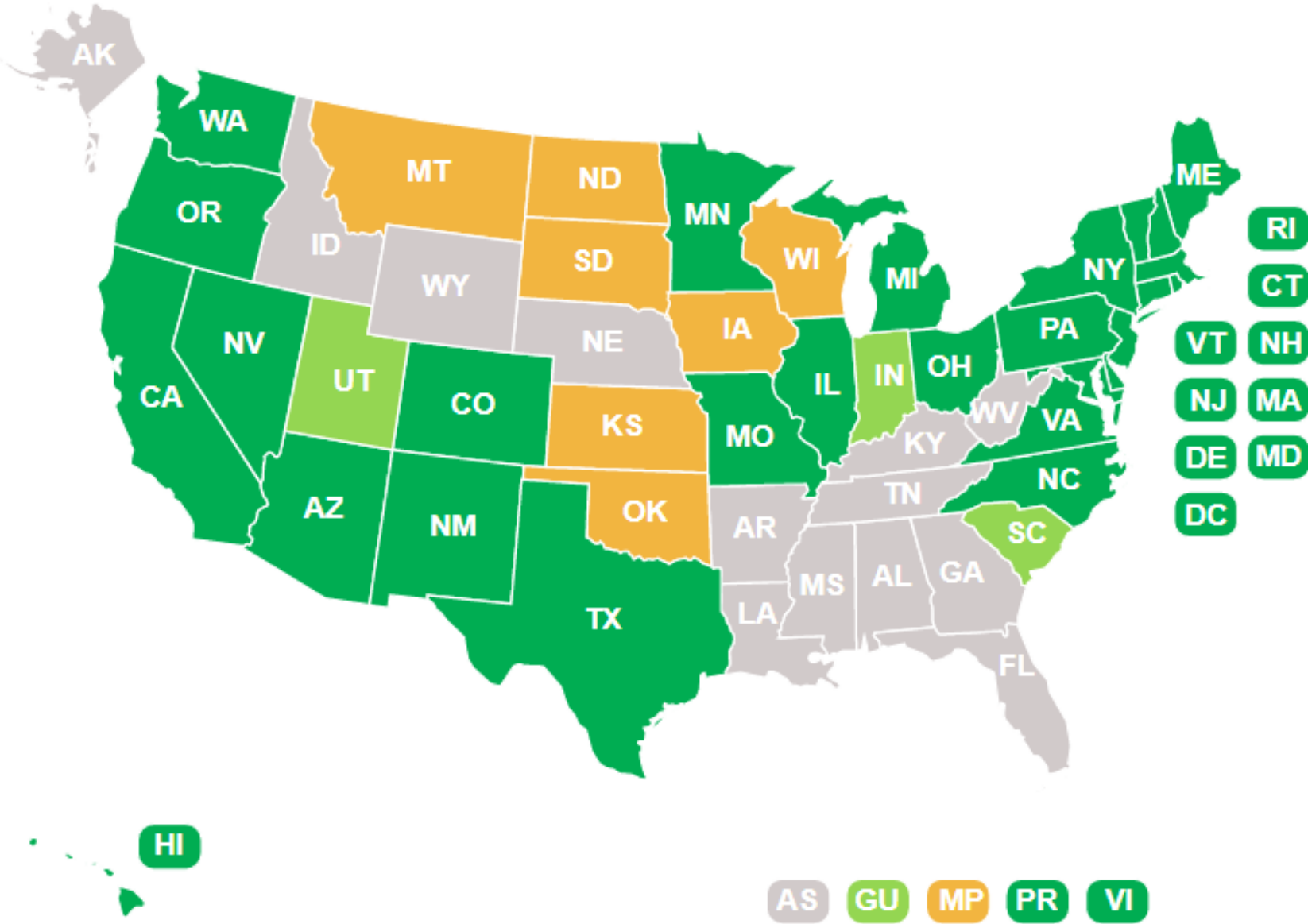
Bipartisan Infrastructure Investment and Jobs Act

Utility / Other: Total 2022 – 2026 (\$B)



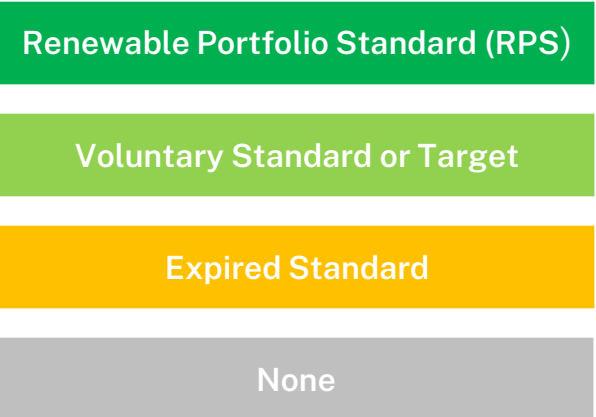
- DOE - \$80B, 26% (Power, Other)**
- EPA - \$68B, 23% (Water, Other)**
- USDA - \$55B, 18% (Coms, Other)**
- DOI - \$73B, 13% (Water, Other)**
- USACE - \$17B, 6% (Other)**
- FCC - \$14B, 5% (Coms)**
- USBR - \$11B, 4% (Water)**
- FEMA - \$7B, 2% (Other)**

States Are Driving Electrification of Everything



A growing number of states and territories are setting Renewable Portfolio Standards (RPS) or targets, and/or Clean Energy Standards with target goals ranging from 15 to 20% by 2025 up to 100% clean energy by 2050

EIA (2021) projects that generation by 2050 will be 42% renewables, 36% natural gas, 11% nuclear, and 11% coal.



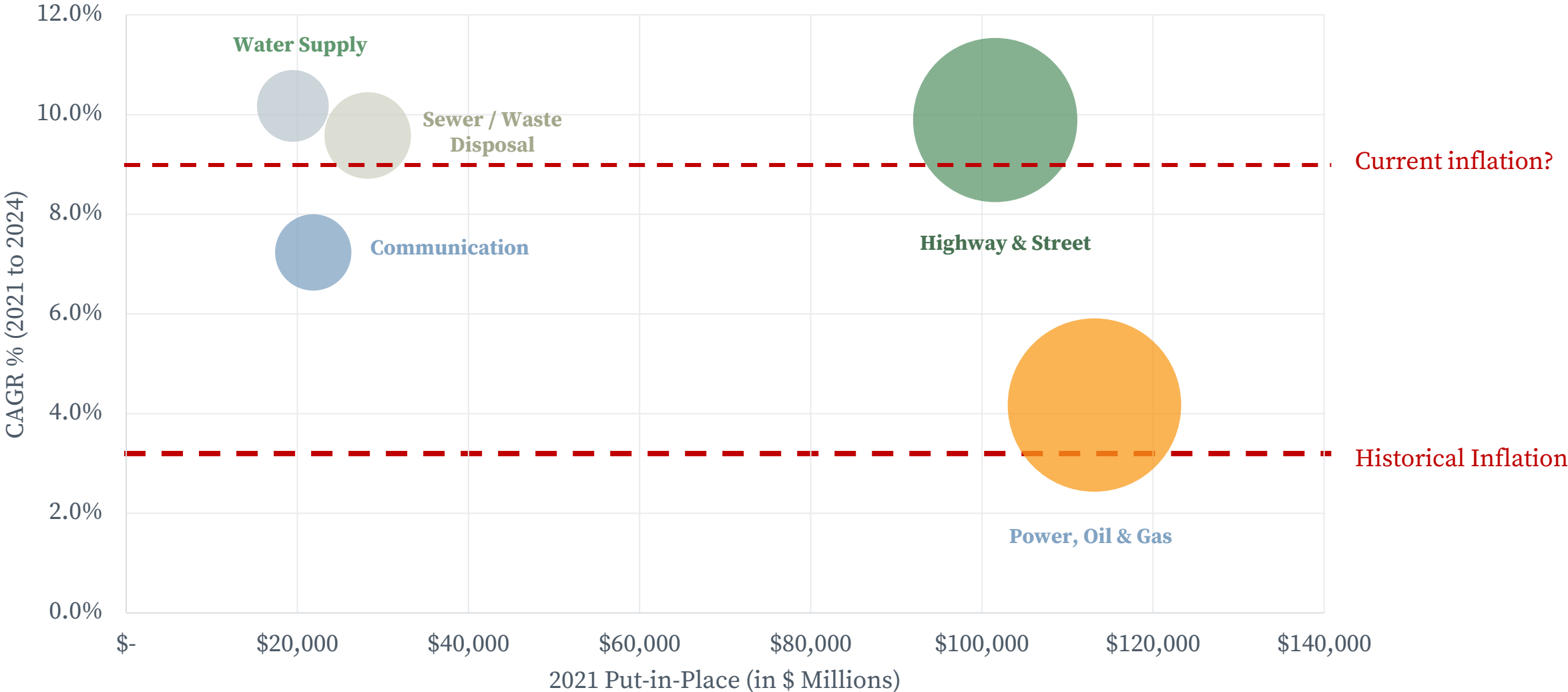
SOURCE: NATIONAL CONFERENCE OF STATE LEGISLATURES



Uncertainty

FMI Forecast Compound Annual Growth: 2021-2025

(current dollars)



Power, Energy, Communications Outlook (12-18 months)



Growing above inflation



Growing with inflation

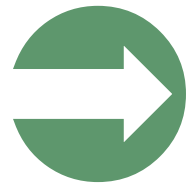


Stable or behind inflation



Down / declining

Electric T&D	DER/Renewables	Oil & Gas	Communications	Municipal
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Transmission



Wind



Solar

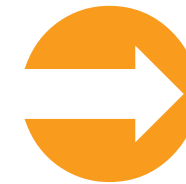
Generation



Gathering



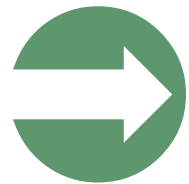
Processing



Long-haul



Water Supply



Distribution



Residential



C&I

Distributed Generation



Oil



Gas



Co2

Transmission

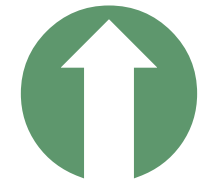


Ring

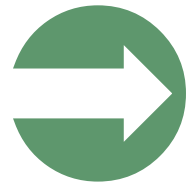


Backhaul

Middle Mile



Wastewater/Sewer



Substation

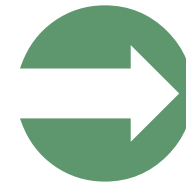


Residential



C&I

Storage



Gas Distribution



FTTH



5G



Other

Last Mile

Great Opportunities ... in Challenging Times

**It was the
best of times,
it was the
worst of times...**

-- Charles Dickens

- It took a global pandemic to convince Congress to invest in global broadband
- The Infrastructure Investment and Jobs Act may be the last bi-partisan major legislation for a long time
- The war in Ukraine is likely to force some balanced perspective and regulation on fossil fuels
- The war in Ukraine will extend supply chain and inflationary trends through 2022
- Every segment of the utility infrastructure market is favorable for perhaps the first time ever
- This growth is happening at a time when the labor force is tapped out and demand for talent is at an all time high across the industry

... this is probably true all of the time

Thank You PCCA!



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FMI is a leading consulting and investment banking firm dedicated exclusively to the built environment. We serve as the industry's trusted advisor, providing current market insights, deep industry research and key relationships that deliver tangible results for our clients.

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