

Navigating Cost Uncertainty

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Agenda

- Historical price trends
- Survey of AAHPA members
- Risk management approaches
- Discussion

Historical Trends

General Inflation

Inflation is measured in multiple indices

■ Common Measures:

○ CPI:

- Measures price changes in goods and services purchased out of pocket by urban consumers
- Use to adjust income and expenditure streams for changes in the cost of living

○ PPI:

- Measures the average change over time in selling prices received by domestic producers of goods and services
- Used to deflate revenue streams to measure real growth in output

○ GDP Deflator:

- Measures price changes in goods and services purchased by consumers, businesses, government, and foreigners
- Used as another measure of inflation

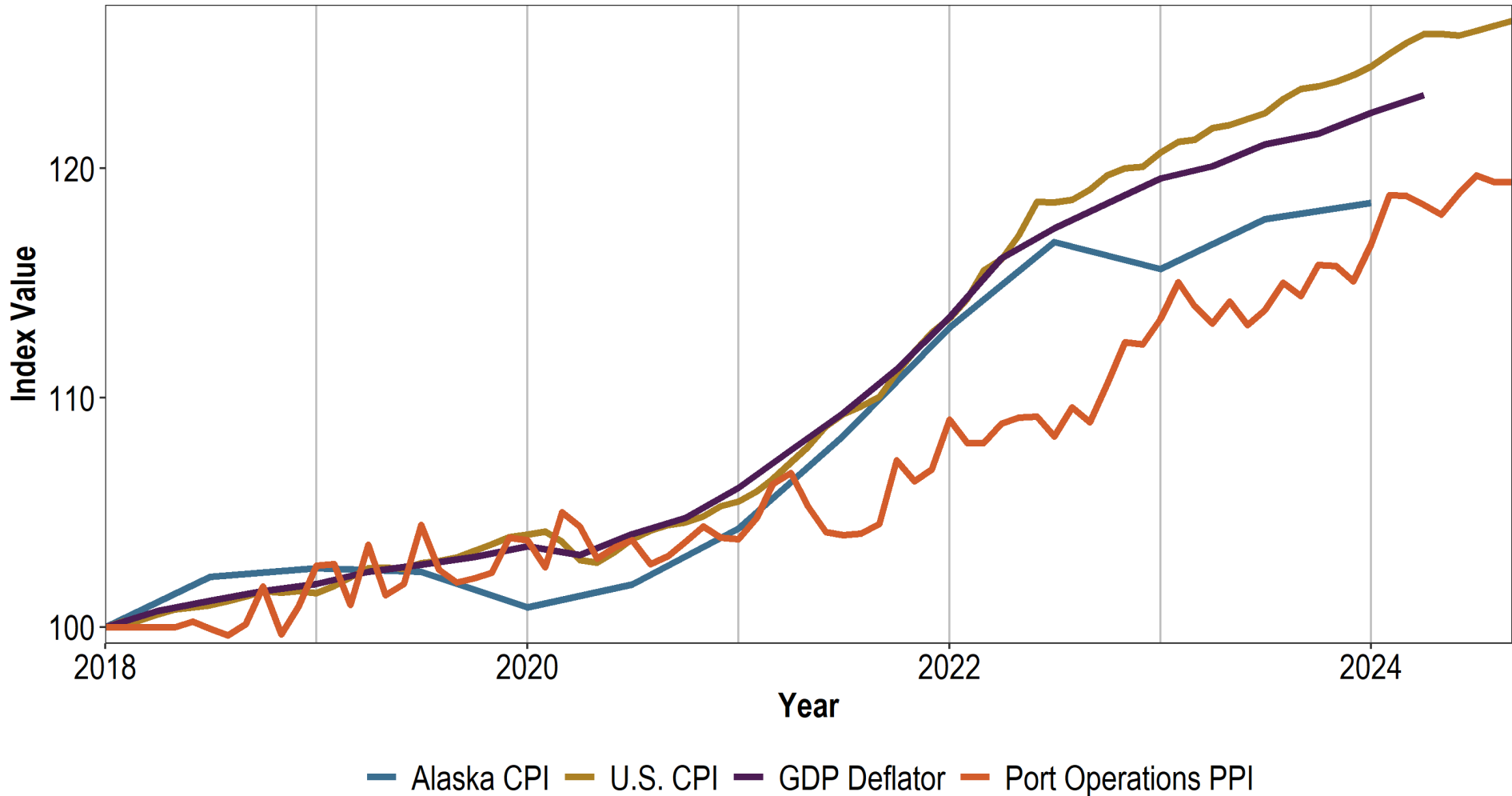
More information:

<https://www.bls.gov/ppi/methodology-reports/comparing-the-producer-price-index-for-personal-consumption-with-the-us-all-items-cpi-for-all-urban-consumers.htm>

<https://www.bls.gov/opub/mlr/2016/article/comparing-the-cpi-with-the-gdp-price-index-and-gdp-implicit-price-deflator.htm>

<https://www.bls.gov/ppi/overview.htm>

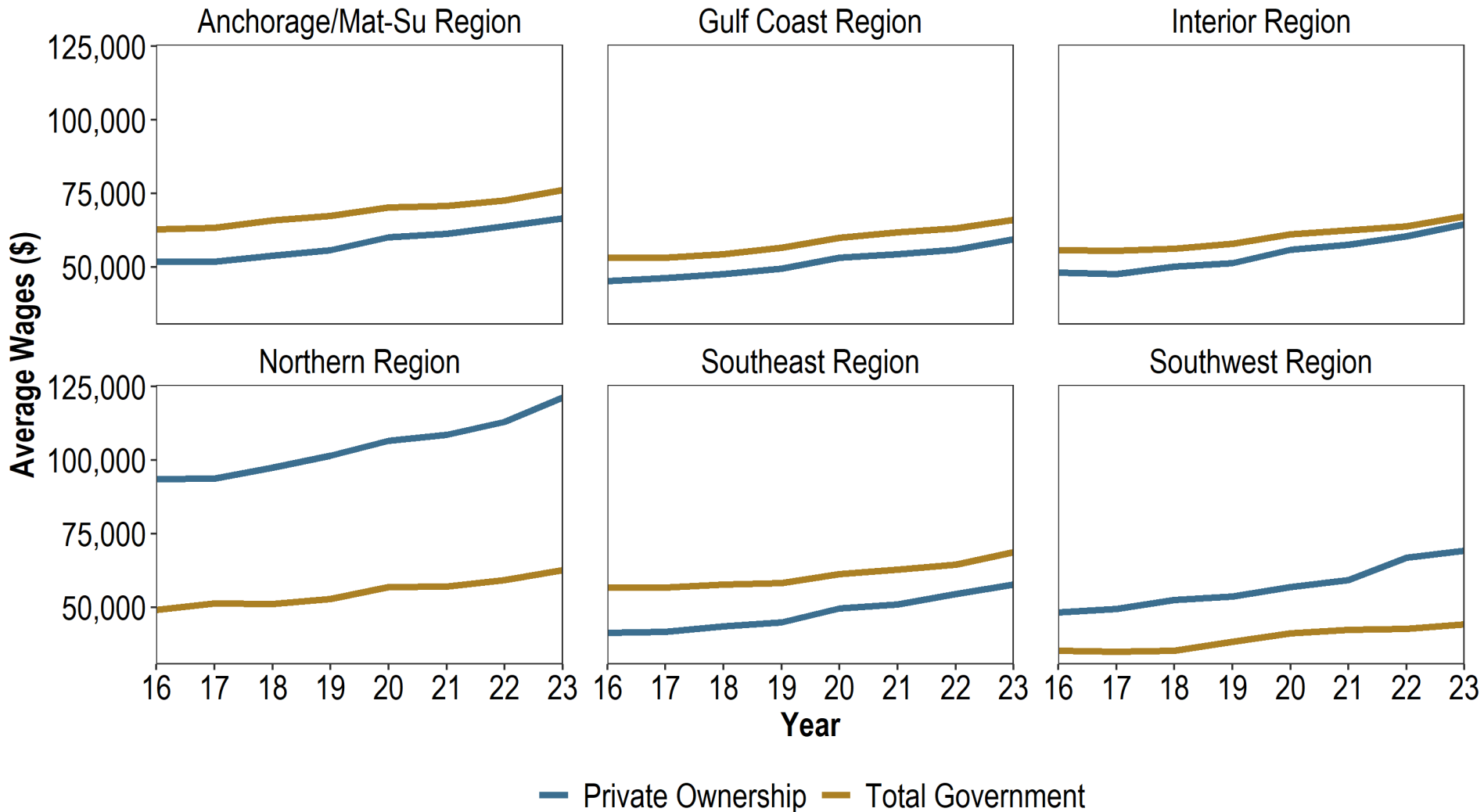
Inflation continues, generally slowing but with national port operations flatish this year



Note: Data retrieved October 15, 2024. Note: Indices normalized to January 1, 2018, for comparison.
Source: St. Louis Fed and Northern Economics, Inc. analysis

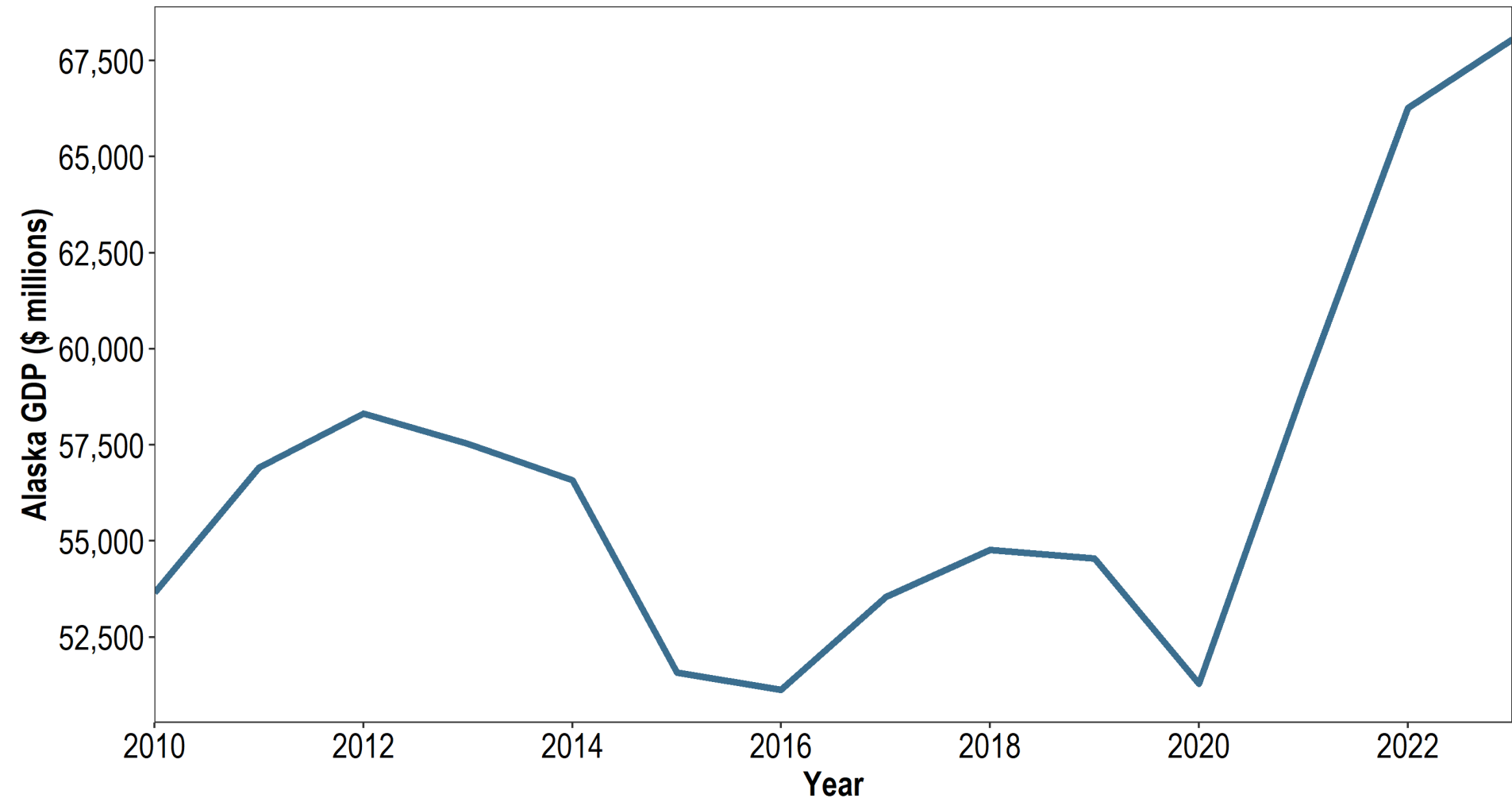
Wage Growth

Average wages have grown steadily in both the public and private sectors



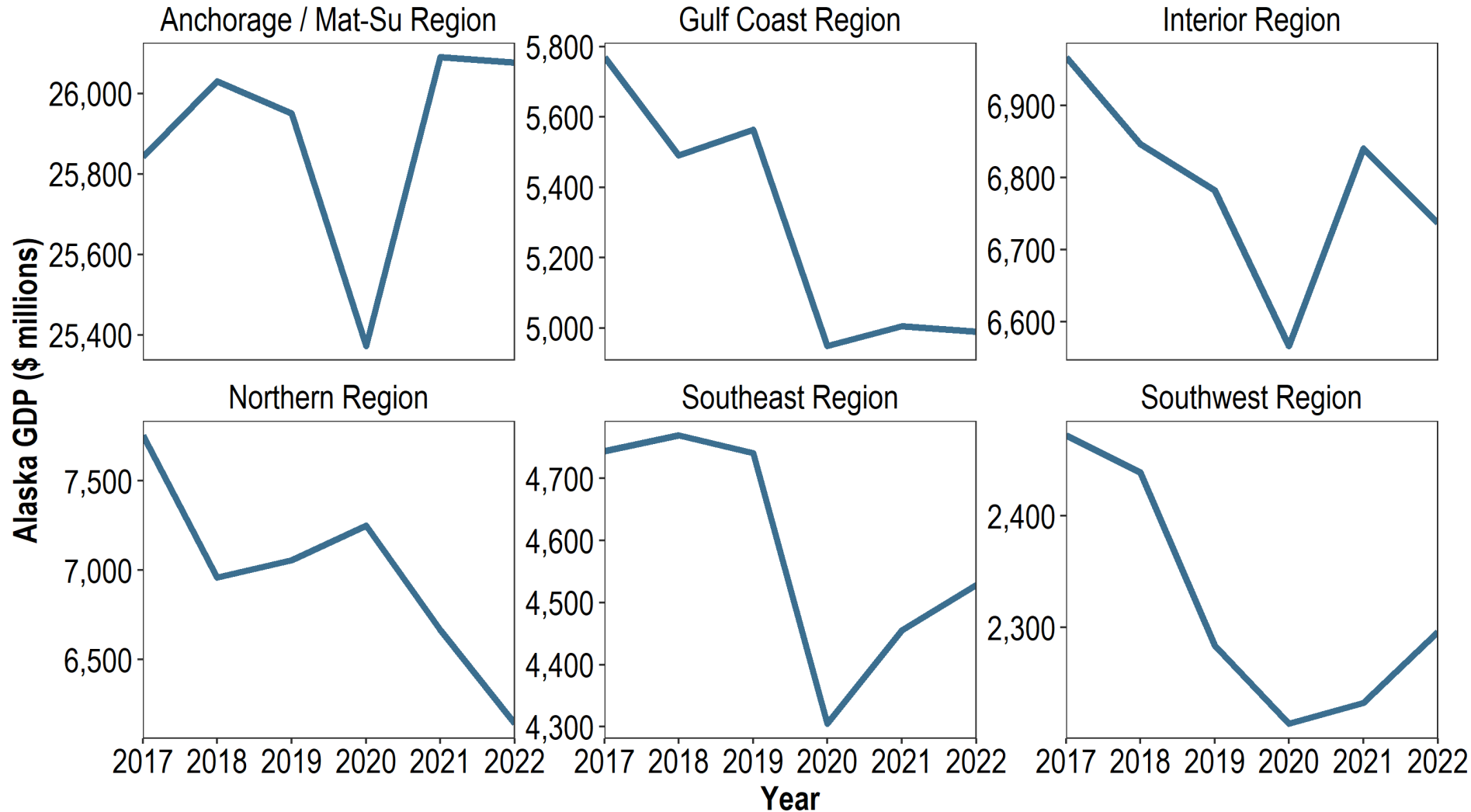
Source: Alaska Department of Labor and Workforce Development and Northern Economics, Inc. analysis

Alaska's GDP increased after flat decade



*Note: Data retrieved October 15, 2024.
Source: St. Louis Fed*

Only two of five coastal regions have seen GDP growth since the low in 2020

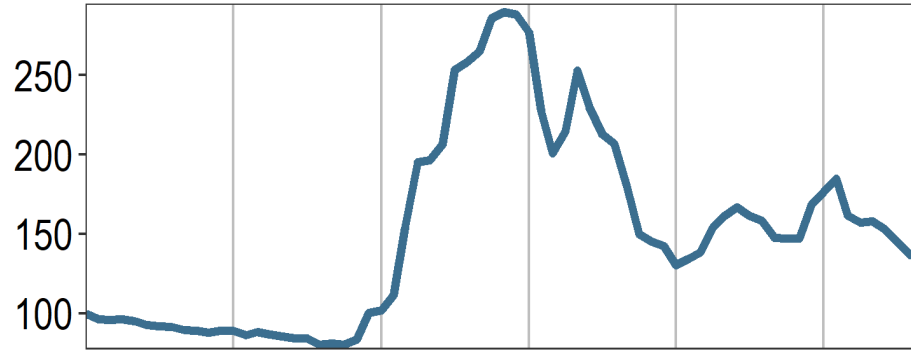


Source: Bureau of Economic Analysis

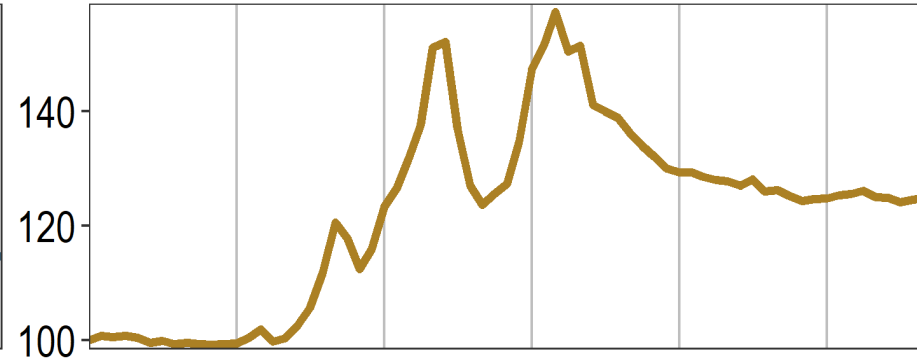
Materials

Selected commodities are moderating...

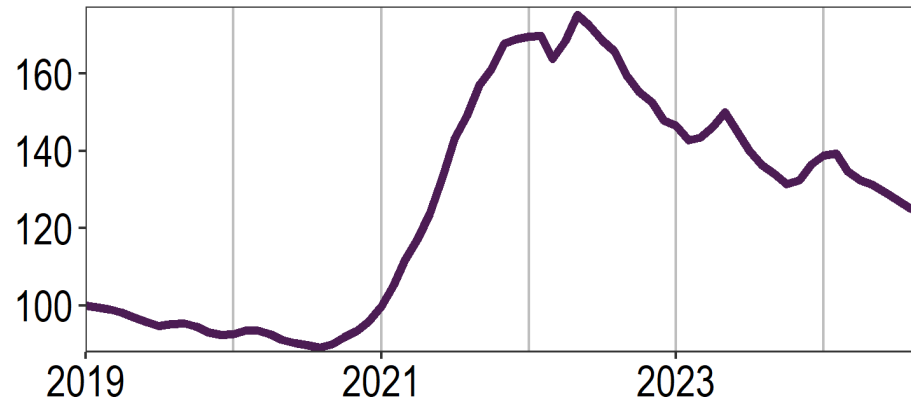
CR Steel Sheet



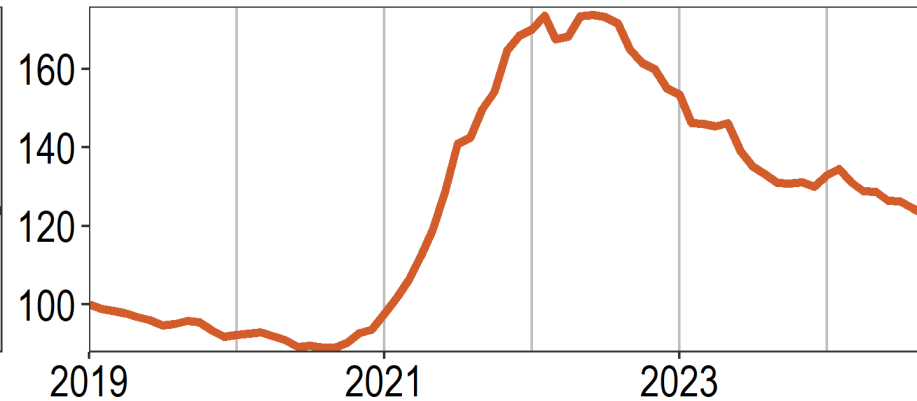
Lumber and Wood Products



Steel Manufacturing from Purchased Steel



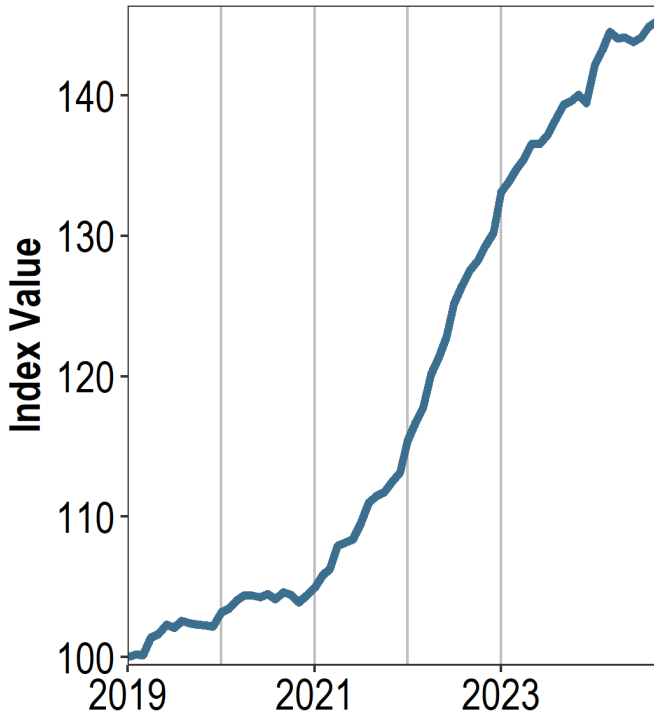
Steel Pipe and Tube



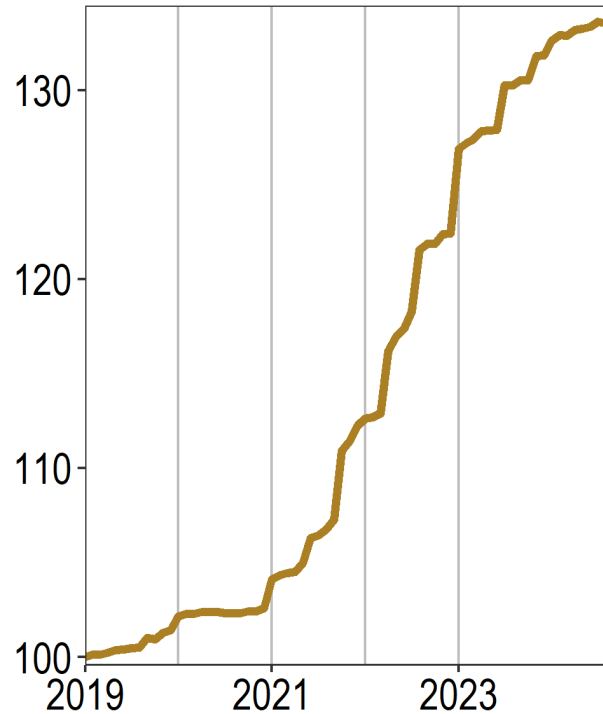
Note: Data retrieved October 15, 2024. Note: Indices normalized to January 1, 2019, for comparison. Source: St. Louis Fed and Northern Economics, Inc. analysis

Others are not...

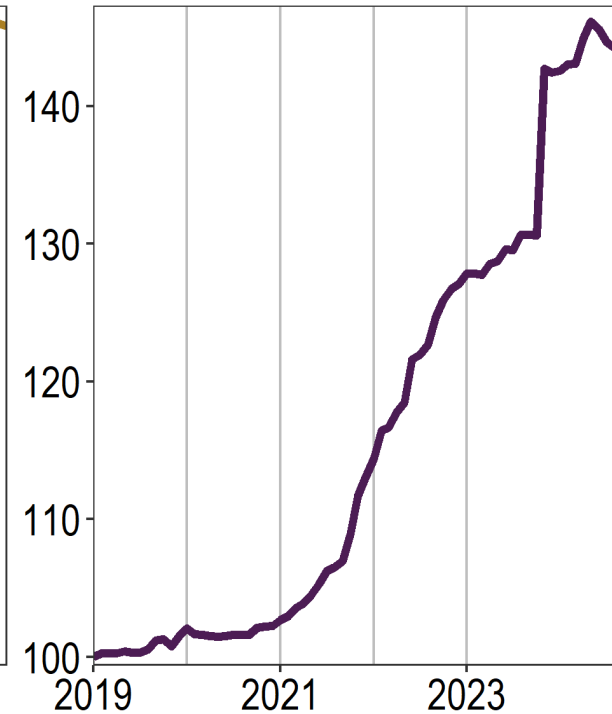
Cement Manufacturing



Construction Machinery Manufacturing



Parts for Construction Machinery and Equipment



— Cement Manufacturing — Construction Machinery Manufacturing — Parts for Construction Machinery and Equipment

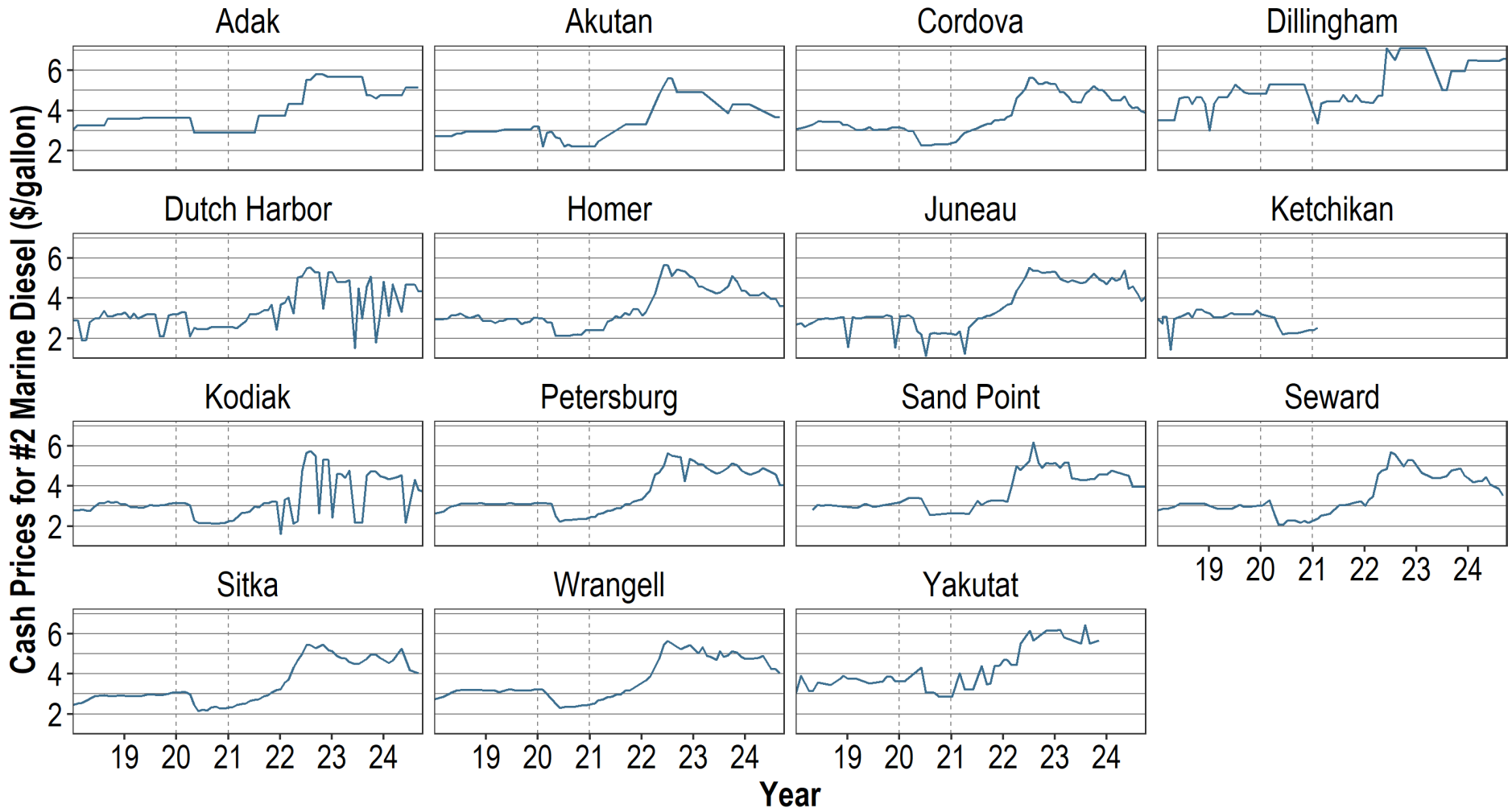
Note: Data retrieved October 15, 2024. Note: Indices normalized to January 1, 2019, for comparison. Source: St. Louis Fed and Northern Economics, Inc. analysis

Other Resources for Cost Data

- ENR reports on commodity and product prices.
- ENR's 2024 First Quarter Report is accessible here:
 - <https://www.howardhughes.com/wp-content/uploads/2024/04/4-Engineering-News-Record-First-Quarterly-Cost-Report.pdf>

Fuel Prices

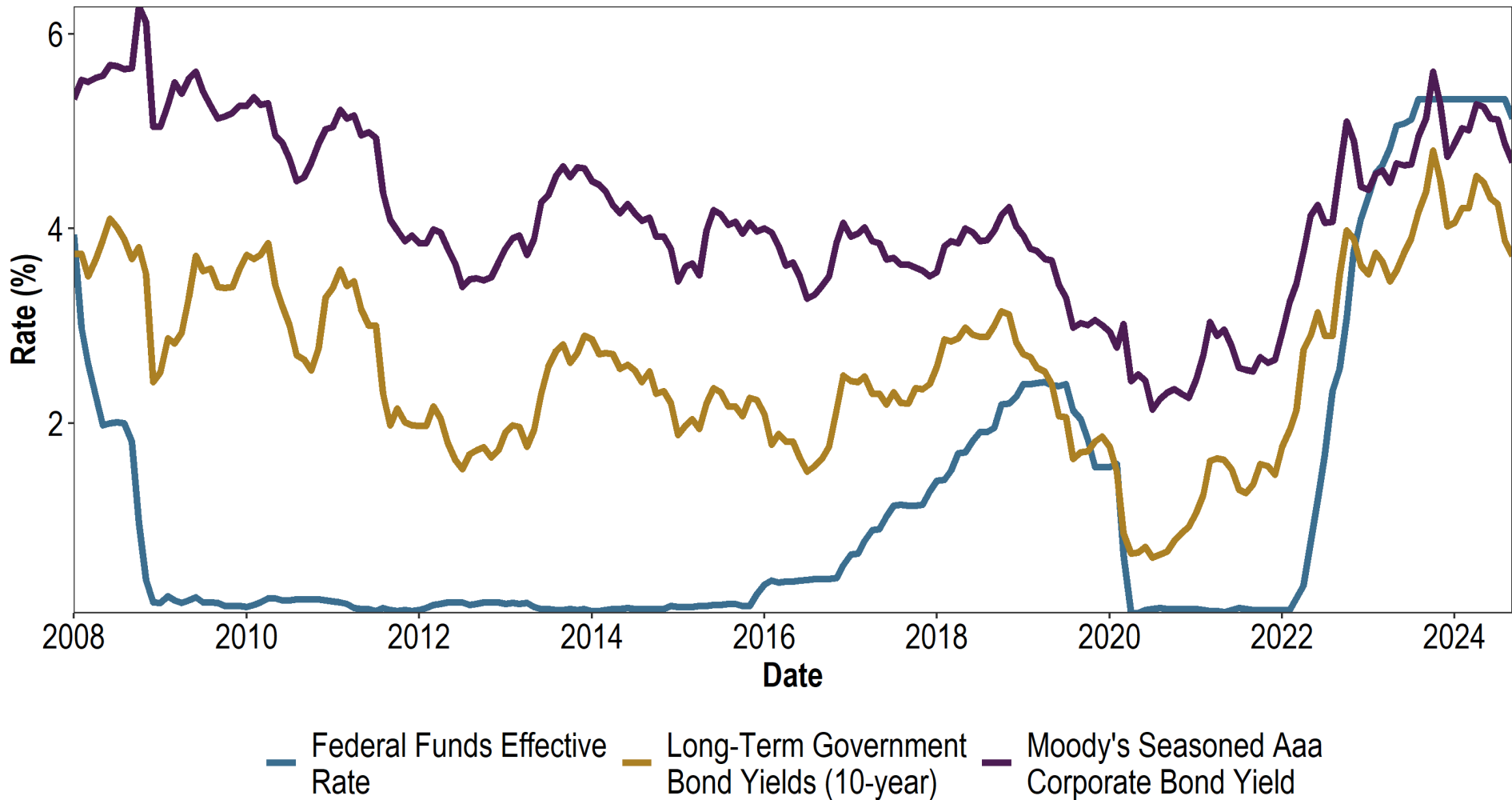
Marine diesel prices are abating, though they are still higher than before 2020



Note: Data retrieved October 15, 2024. Prices averaged across docks and zeroes omitted.
Source: Pacific States Marine Fishery Commission and Northern Economics, Inc. analysis

Borrowing Costs

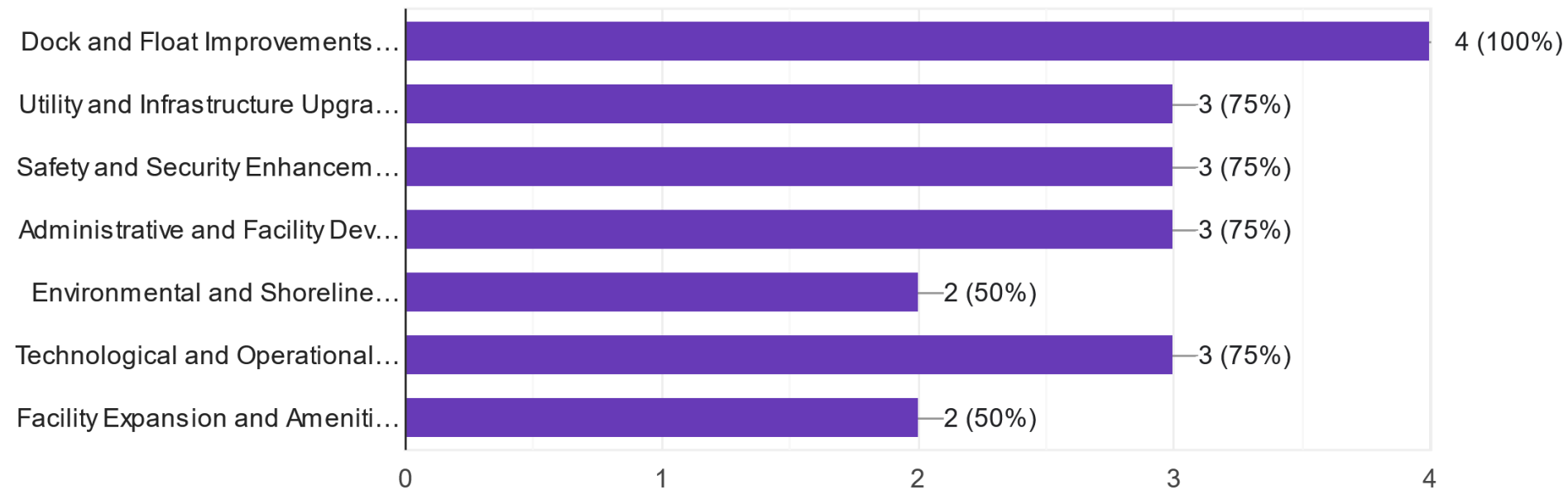
Debt is expensive, though the Fed rate cut is helping to reduce some borrowing costs



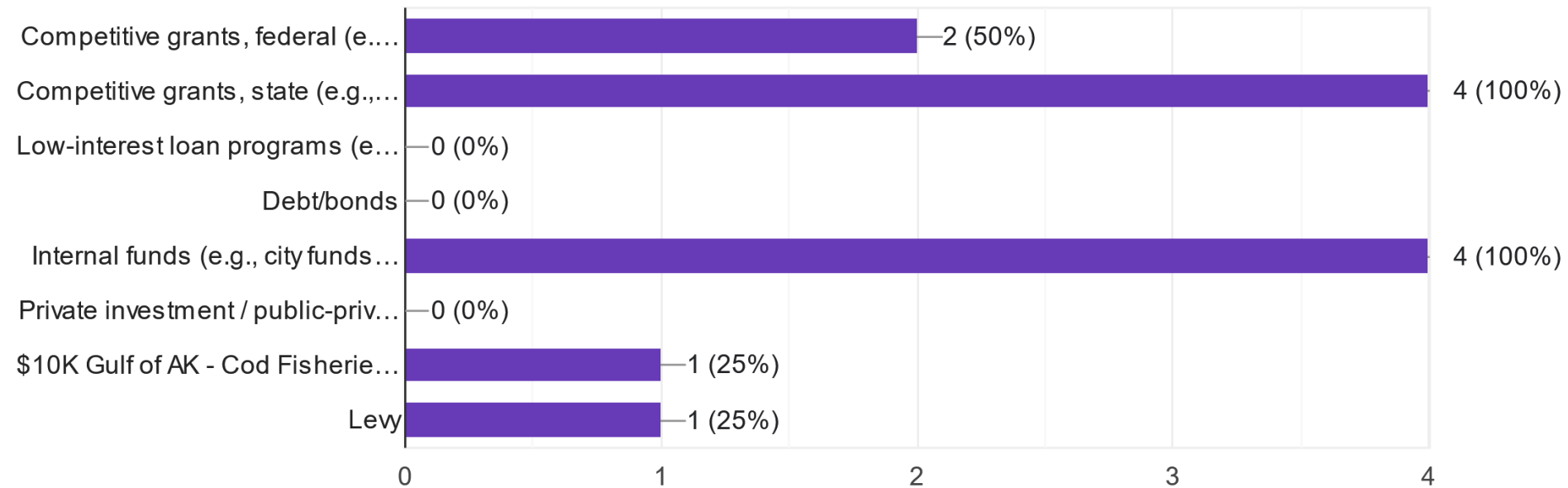
Note: Data retrieved October 15, 2024.
Source: St. Louis Fed

Member Survey

What types of infrastructure projects have you invested in over the last 5 years?



How has your organization funded recent capital expenditures?



How has the availability of funding influenced your capital projects?

- We have found out the timelines on state and federal funding sources don't mesh. Takes some doing to make sure one fund stays put while the other one's timelines are met.
- Have to exercise patience.
- We raised rates in 2023.
- The availability of funding has significantly [positively] influenced our capital projects.
- Slowed the process down and become more expensive.

Have you noticed any significant changes in the costs associated with these projects?

- Post-pandemic, our construction costs have increased 3x that of 2018.
- We have seen at least a 50% or more increase in some projects over the last 4 years.
- 26%-43%

What are the main factors driving these changes?

- Supply chain
- Commodity prices
- Construction companies' staffing
- Material and labor costs
- Substantial federal stimulus spending driving up demand and costs
- Product availability
- Workforce expertise is lacking
- Workforce availability is low
- We're not waiting for a favorable market to advertise a project. We will advertise with numerous additive bid items and award only what we can afford.
- Moving to design-bid-build for some instances where it makes sense.

What future capital investments do you foresee in the next 5 years?

- Recapitalization of existing floats
- New breakwater
- New harbormaster building
- Marine services yard.
- Harbor basin revitalization
- Barge ramp
- Freight yard
- Dock repair/replacement
- Seawall repairs
- Shore power/ uplands electrical upgrades
- Security enhancements (cameras)

What areas of operational costs have seen the most significant changes recently?

- Our current project estimated at \$4.5 million has now become \$9.5 million. All costs have gone up. We have been adding 40% to a lot of our projects just trying to get close over the past 5 years.
- Insurance by far!
- Notable increase in labor costs due to a shortage of skilled workers and rising wages.
- Fuel and energy costs have also risen, impacting the overall operational expenses.
- Maintenance expenses have escalated, partly due to aging infrastructure.
- Compliance with environmental regulations often means more costly maintenance practices.
- Cost of shipping and freight has increased significantly (supply chain, demand).
- Labor costs and maintenance

How have labor costs evolved for your organization? Specific challenges you face?

- It is getting very expensive and hard to get qualified people to travel.
- Have never thought we cannot afford the salaries we provide our employees. Have thought, why are paying this person?
- Finding and retaining skilled workers is a major challenge.
- COLA increases and demand for more equitable pay
- Challenge with retention
- Challenge with having workforce come back to office work

What measures have you taken to manage or reduce costs?

- Looking for contractors to sign on for multiple year commitments
- Combine small projects when possible
- Maintain a philosophy of constant improvement in everything we do
- Undertaking as many projects in-house as possible
- Reorganization
- Job reclassifications
- Data of use of materials to reduce "leaking"

Have maintenance and repair costs increased, decreased, or remained stable?

- Yes, the increase in these items is crazy.
- Probably increased but we have mostly new floats.
- Electrical systems seem to be the most expensive repairs.
- Maintenance and repair costs for our harbors have generally increased in recent years: aging infrastructure, environmental compliance, material and labor costs, and unexpected repairs.
- Labor/benefits costs

What types of technology investments have you made recently?

- Changing how we use phone service, going to over the internet
- Installed large video systems in each of our communities to help cut down on travel costs; use of the Starlink system is very cost effective
- Improved security cameras
- Locking security gate at harbor
- Several strategic technology investments to enhance our operations; for instance, credit card activation system for our cranes
- Digital, skills training (investment in people)

What upcoming technological advancements are you considering?

- More electrical vessels
- EV Charging stations
- Cruise ship dock electrification
- Installation of high-speed charging stations for both vehicles and boats
- Drone use for asset management
- Cameras for terminal management
- Metering for various utilities

What investments have you made in sustainability and green technologies?

- Shore power
- Electrification as noted in prior question
- Innovation center construction
- Habitat restoration
- Salmon monitoring

Are you planning any new environmental projects or initiatives?

- Cruise ship dock electrification

What cost-related challenges do you anticipate in the next 5-10 years?

- Funding for projects
- Cost of travel for staff and assembly
- Not bonding for projects
- Local match for US Army Corps of Engineers work
- Substantial initial cost of upgrading to accommodate cruise ships' electrical needs
- Workforce costs
- Material quality reduction; more frequent replacement needed

What has been the most challenging aspect of managing costs in your experience?

- Trying to figure out the cost per pound of seafood and fishing quotas
- Have the Assembly nix proposed raise increases
- All of the above
- Availability & quality of products
- Training workforce on new technology for maintenance

Have you encountered supply chain disruptions, scarcity of required materials?

- It has been hard to get material in a timely manner
- Delays in project completion
- Loss of West Coast creosote plants; have elected not to use creosote in future projects

Cost Risk Management

Potential Ways to Reduce Costs/Uncertainty

- Upfront (budgeting process)
 - Adding contingencies and escalation factors
 - Three-point estimates and simulation
 - Shift to materials experiencing less inflation
- During construction (once funded)
 - Pre-purchasing materials for multi-year projects
 - Contractual methods

Discussion:
What can we do to address uncertainty?
What has worked for you?

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Presentation is available harbormodel.com/!

