

A close-up, low-angle shot of the front of a dark-colored truck. The image focuses on the right-side headlight, which is illuminated with a warm, yellowish glow. Above the headlight is a large, rectangular side mirror. The truck's grille with horizontal slats is visible on the right. The background is a blurred city street at dusk or dawn, with warm lights from buildings and streetlights creating a bokeh effect.

Transportation Research Board

Executive Committee Meeting

June 15, 2022 | Presented By: Jolene Hayes, AICP

FEHR & PEERS

Supply Chain Issues



**What is
Happening?**



**Lessons
Learned**



**Research
Needs**



How did we get here?

Respondents are split on the cause and the predictability of the supply chain breakdown

The impact of on-going supply chain disruptions on my business or the businesses I represent has been...

47%

A combination of foreseeable and unprecedented circumstances

25%
Completely the result of unprecedented circumstances

22%
Completely foreseeable

6%
Unsure

0%
Neither



SUPPLY CHAIN DISRUPTIONS NOT ONLY LEAD TO IMMEDIATE CHALLENGES, BUT ALSO FORCE POTENTIALLY PERMANENT CHANGES IN THE OPERATION OF BUSINESS

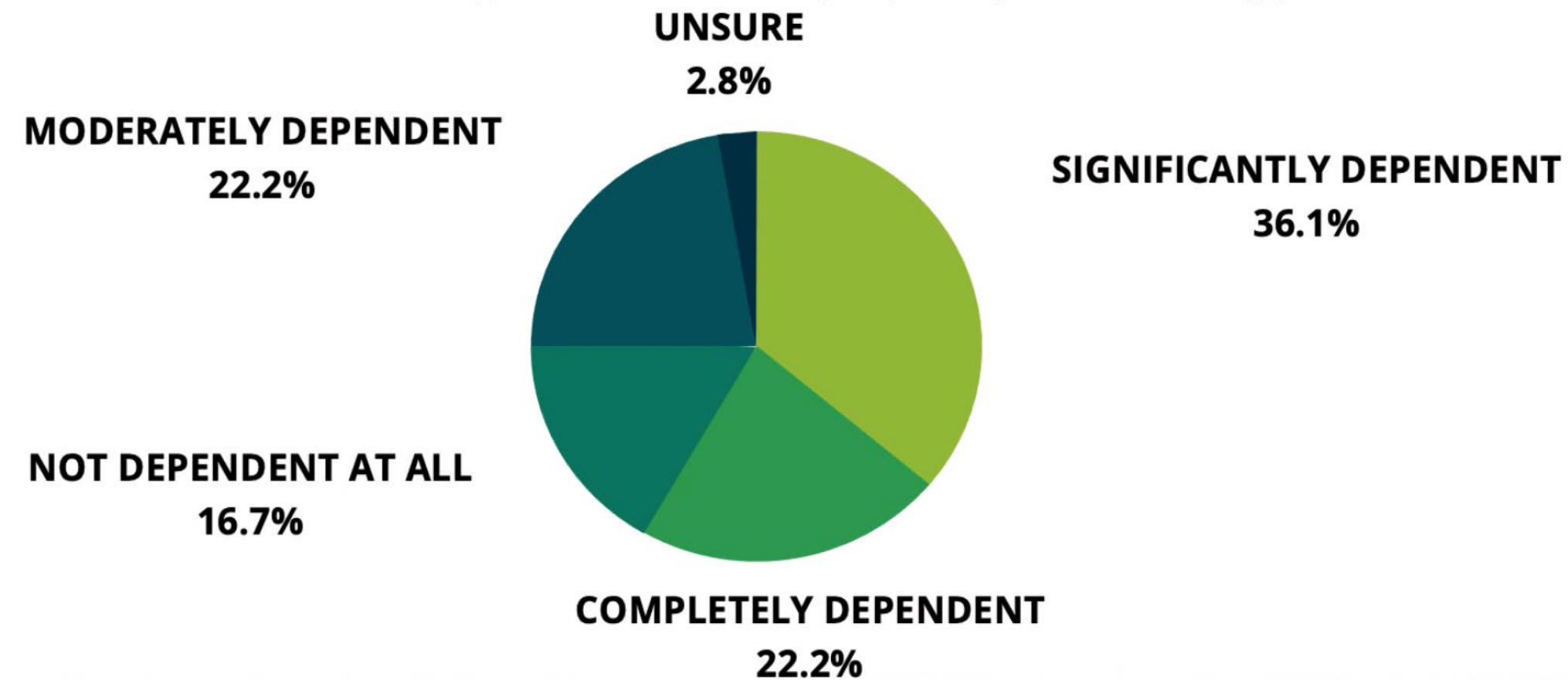
The specific challenges to my business or the businesses I represent as a result of disruptions in the supply chain have included

Increased costs that have caused changes in operations	46%
Customer satisfaction issues	33%
Labor shortages	33%
Inability to meet production or delivery deadlines	33%
Loss of customers	25%
Loss of suppliers	21%
The need to eliminate steps in the goods movement process to ship directly to end-users	21%
None	13%
The need to change business models to no longer rely on supply chain	8%
The need to change business model emphasis from bricks and mortar to online	8%
Lack of sufficient and logistically-desirable storage space	4%



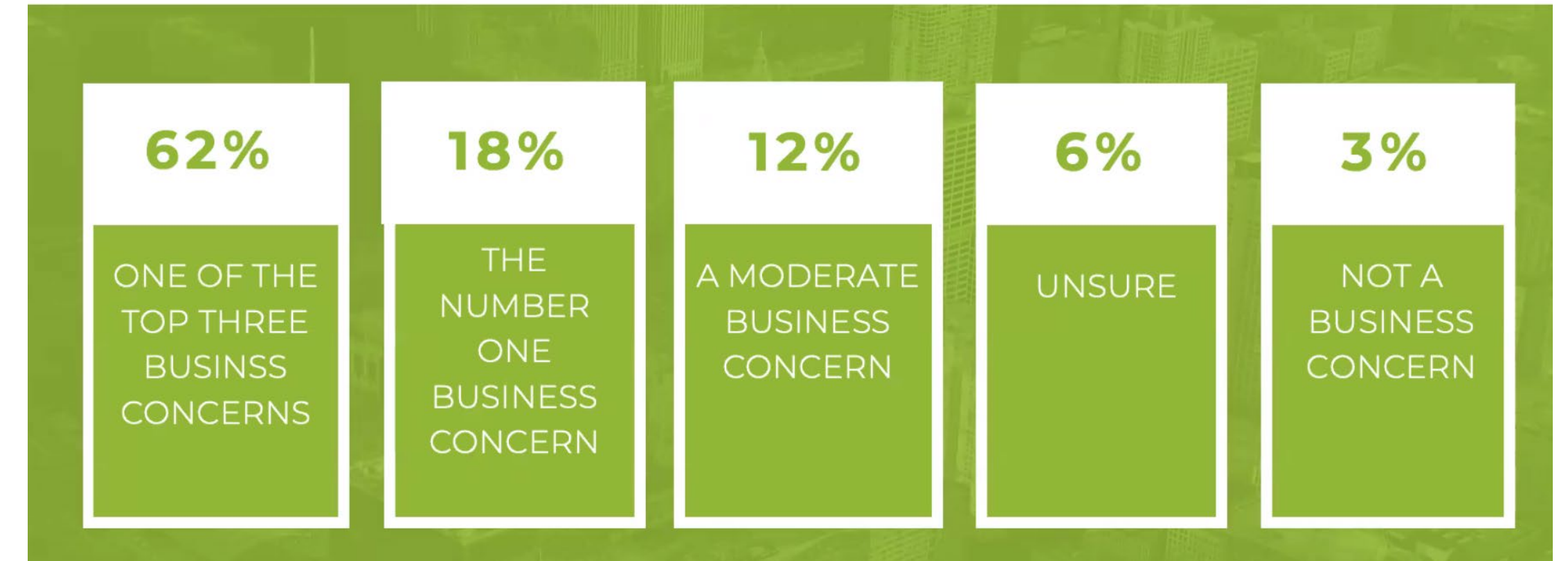
LOCAL BUSINESSES DEPEND ON THE SUPPLY CHAIN TO SUCCEED...

To what extent is the success of your business or the businesses you represent dependent on a reliable supply chain?



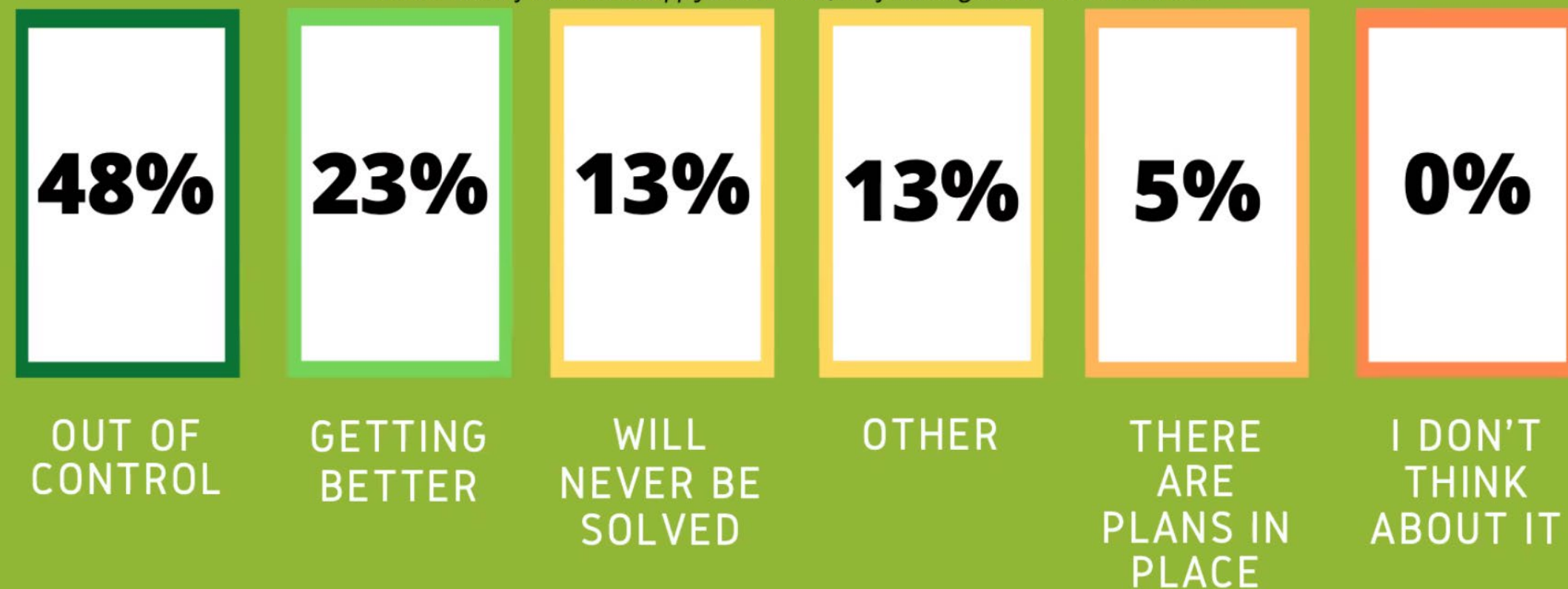
SUPPLY CHAIN DISRUPTIONS DISRUPT BUSINESS

How do you rank the on-going challenges caused by unreliable goods movement and supply chain disruptions as a business concern?



EVERYONE IS THINKING ABOUT THE SUPPLY CHAIN, BUT THE ISSUES WILL NOT BE EASY TO FIX

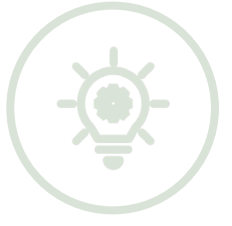
When I think of the current supply chain issues, the first thing that comes to mind is...



Based on what we are currently experiencing with our supply chain, I would support the following public policy actions

Actively reduce restrictive regulations, even if on a temporary basis

71%



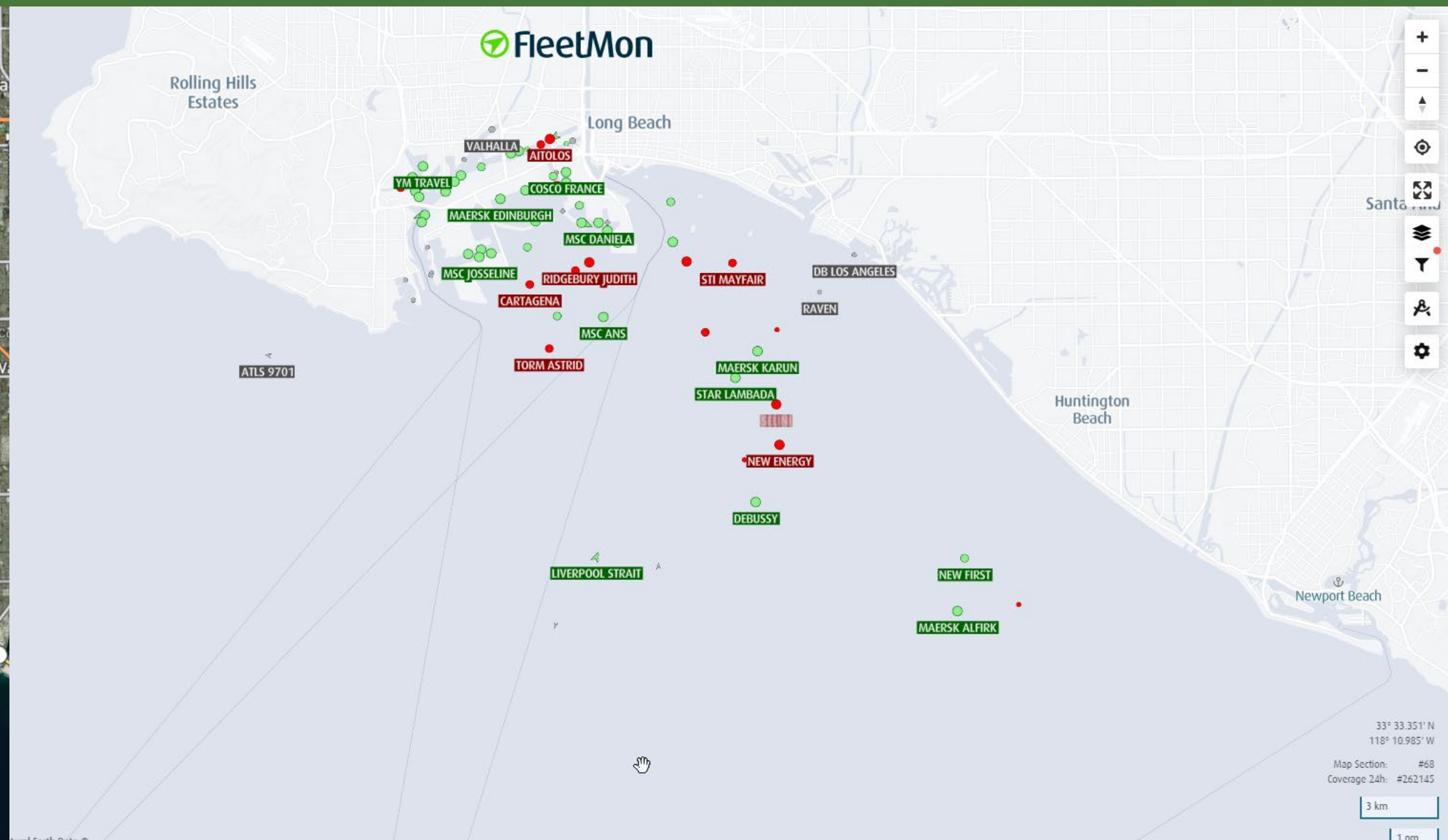
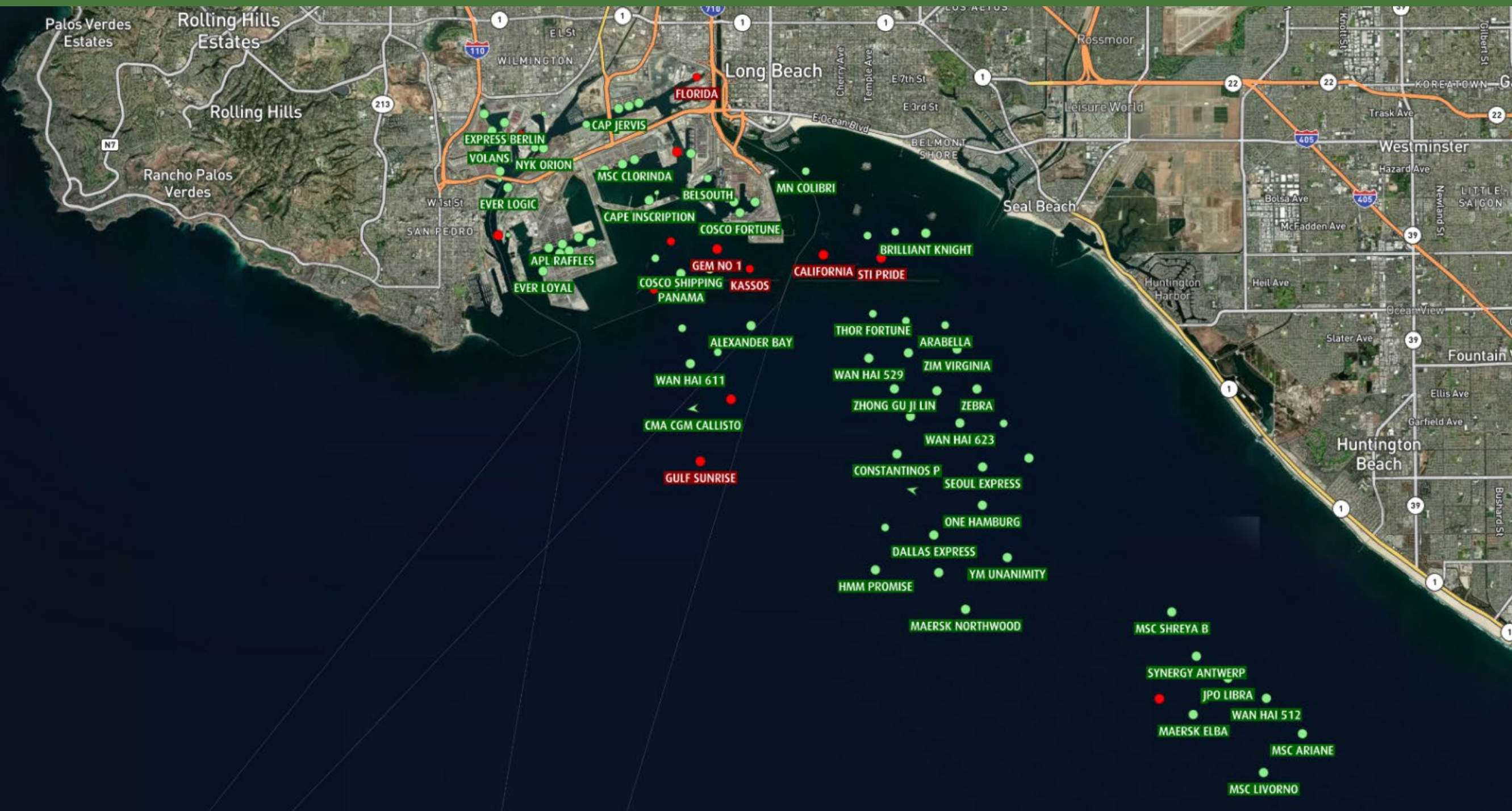
Seaport – U.S. and International





Asian Ports – What's happening now?

- China COVID shutdown
- Delays at Chinese ports
- Shanghai industries operating at 20-50%
- Vessels are skipping Chinese ports





U.S. Ports – What’s happening now?

- Surge at POLA/POLB is down
- Surges at EC ports are up
- BCOs are sitting on containers
- Midwest exports are stuck
- Precision Scheduled Railroading


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LOGISTICS REPORT

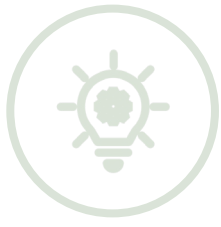
Shipping Bottlenecks Hit Port of New York and New Jersey

A backup of vessels is growing at the East Coast’s busiest container import gateway as rising stacks of empty boxes clog docks



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CREATING THE ABILITY FOR SUSTAINABILITY ▶

Officials at the Port of New York and New Jersey expect a stronger rush of shipments in summer as the peak shipping season begins.
PHOTO: JUSTIN LANE/SHUTTERSTOCK



Railroad Congestion





Intermodal Rail Issues

- Precision Scheduled Railroading
- 45,000 railroad jobs cut since 2017
- On-dock rail at capacity

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Politics

Railroad Regulators Propose Rule Change to Get Freight Moving

Plan would compress existing timeline under which a shipper's petition for relief is considered, speeding up any potential intervention by regulators



Railroad industry officials have criticized proposals to more aggressively regulate the industry's operations. PHOTO: KYLE GRILLOT/BLOOMBERG NEWS

By [Ted Mann](#) [Follow](#)
Updated April 22, 2022 3:20 pm ET

2022 Wealth Planning Outlook: Wealth, Redefined

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News & Analysis



NS reducing IPI export service to West Coast ports

20 May 2022

Norfolk Southern Railway is reducing service on 120 international intermodal lanes to simplify its network and improve service, but some companies are worried it will harm exporters and chassis supply.

[MORE »](#)

tb-seeks-ways-to-quickly-ease-railroad-service-problems/

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Home / News & Reviews / News Wire / STB seeks ways to quickly ease railroad service problems

STB seeks ways to quickly ease railroad service problems

By Bill Stephens | April 27, 2022

Railroads say they're working to address crew shortages, but shippers and rail labor blame Precision Scheduled Railroading for gutting rail capacity


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LOGISTICS REPORT

California Ports Say Threat of Penalty Keeps Cargo Moving

The ports of Los Angeles and Long Beach say containers are moving off crowded docks even though a planned penalty program has been repeatedly pushed back



Shipping containers were stacked at the Port of Los Angeles in November. The backlog has declined since then. PHOTO: MARIO TAMA/GETTY IMAGES

By [Paul Pace](#) [Follow](#)
May 17, 2022 4:17 pm ET

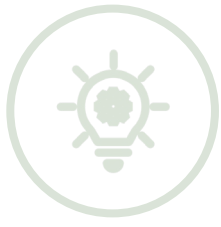
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Number of the Day

752,610

International containers moved in North American intermodal networks in April, a 10.4% decline from the same month last year, [according to the Intermodal Association of North America.](#)



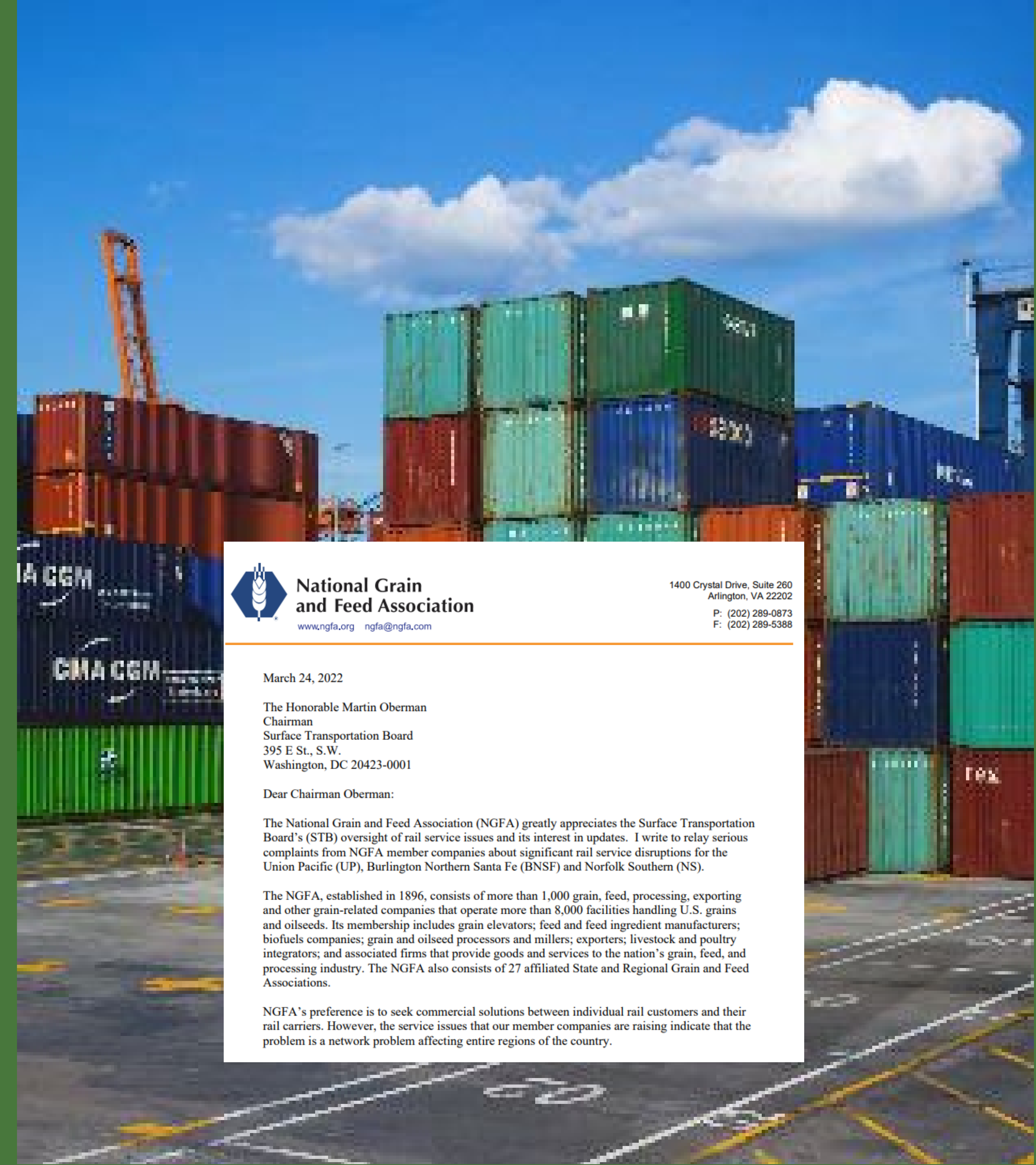
Equipment Shortages





Export Container Shortage

- Warehouses are taking 45 days on average to empty loaded containers
- Trucking companies are charged for not returning empties to the ports within 20 days
- Railroad congestion limited availability of empties in the Midwest (esp. Chicago)



**National Grain
and Feed Association**

www.ngfa.org ngfa@ngfa.com

1400 Crystal Drive, Suite 260
Arlington, VA 22202

P: (202) 289-0873
F: (202) 289-5388

March 24, 2022

The Honorable Martin Oberman
Chairman
Surface Transportation Board
395 E St., S.W.
Washington, DC 20423-0001

Dear Chairman Oberman:

The National Grain and Feed Association (NGFA) greatly appreciates the Surface Transportation Board's (STB) oversight of rail service issues and its interest in updates. I write to relay serious complaints from NGFA member companies about significant rail service disruptions for the Union Pacific (UP), Burlington Northern Santa Fe (BNSF) and Norfolk Southern (NS).

The NGFA, established in 1896, consists of more than 1,000 grain, feed, processing, exporting and other grain-related companies that operate more than 8,000 facilities handling U.S. grains and oilseeds. Its membership includes grain elevators; feed and feed ingredient manufacturers; biofuels companies; grain and oilseed processors and millers; exporters; livestock and poultry integrators; and associated firms that provide goods and services to the nation's grain, feed, and processing industry. The NGFA also consists of 27 affiliated State and Regional Grain and Feed Associations.

NGFA's preference is to seek commercial solutions between individual rail customers and their rail carriers. However, the service issues that our member companies are raising indicate that the problem is a network problem affecting entire regions of the country.



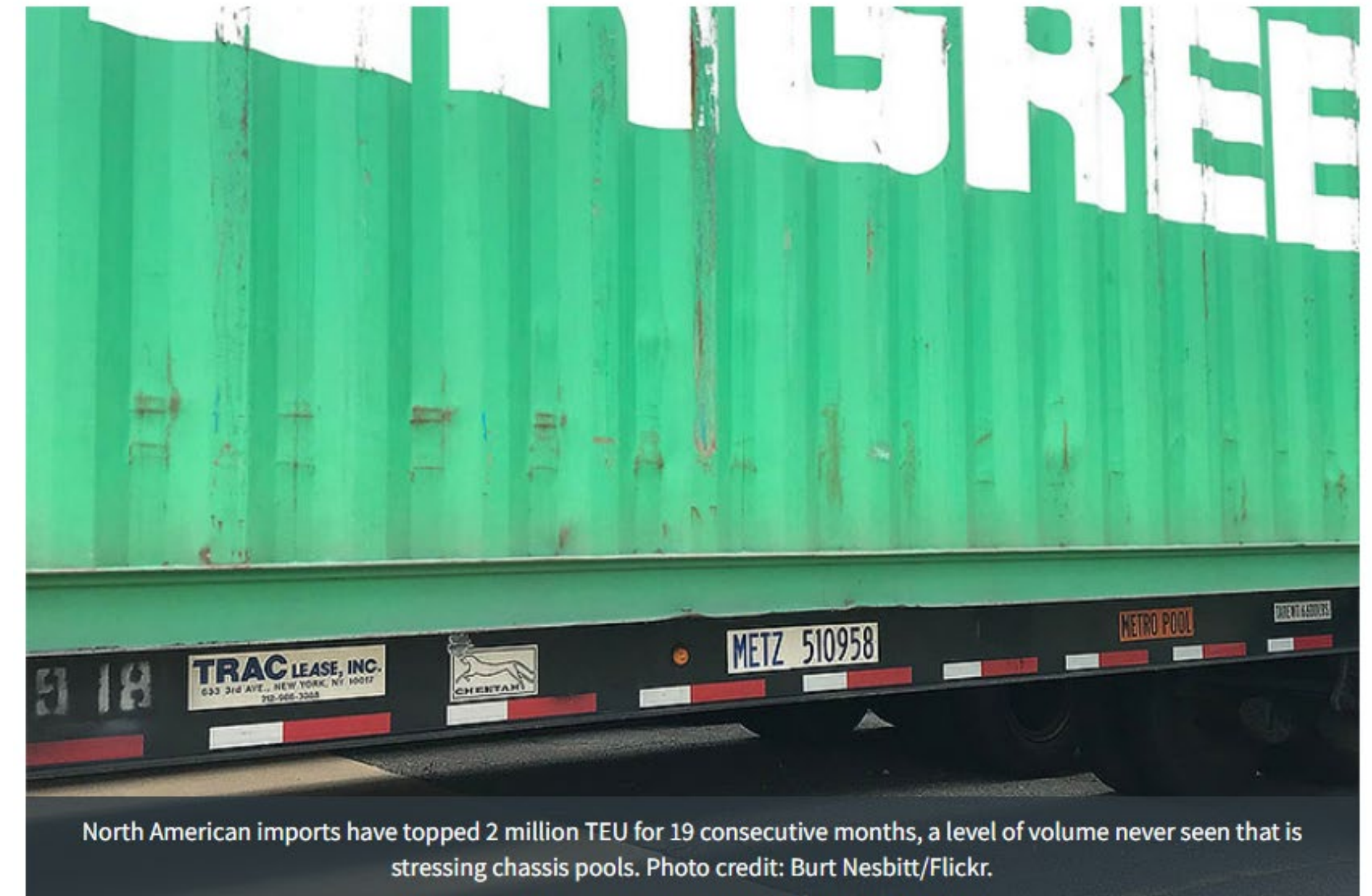
Chassis Shortages

- Chassis parked at warehouses
- No incentive to require returns
- Chassis manufacturing – no labor or production inputs
- SC Ports delayed launching chassis pool due to lack of chassis

TPM22: Marine chassis shortage to last into 2023

Ari Ashe, Senior Editor | Mar 04, 2022 8:00AM EST

Print     



North American imports have topped 2 million TEU for 19 consecutive months, a level of volume never seen that is stressing chassis pools. Photo credit: Burt Nesbitt/Flickr.

It will take until 2023 before there are enough marine chassis available to handle the surge in import containers congesting US ports and inland rail ramps, chassis manufacturers and lessors told JOC's TPM22 in Long Beach this week.

Containers are dwelling longer, either because importers are taking longer to unload the cargo or shipping lines roll export bookings, causing the turnover of chassis between customers to slow considerably, industry participants say.





Shipping Cost Increases





Shipping Cost Increases

- Ten times the cost for containers
- Wage increases
- Price of diesel fuel
- Contributing to inflation

Quotable

“We saw much-higher-than-expected freight and transportation costs and a more dramatic change in our sales mix than we anticipated.”

— Target CEO Brian Cornell



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Transportation



CMA CGM in its traditional place, on the water. PHOTO: MICHAEL NAGLE/ZUMA PRESS



Labor Shortages

- Truck drivers
- Warehouse workers
- Railroad workers
- Chassis manufacturers
- Chassis subcomponent manufacturers

THE WALL STREET JOURNAL

By [Vanessa Fuhrmans](#) [Follow](#) and [Kathryn Dill](#) [Follow](#)

Updated April 26, 2022 2:02 pm ET

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As the labor market reorders, more Americans are making the leap from blue-collar jobs and hourly work to “new collar” roles that often involve tech skills and come with better pay and schedules.

More than a tenth of Americans in low-paying roles in warehouses, manufacturing, hospitality and other hourly positions made such a switch during the past two years, according to new research from Oliver Wyman, a management consulting firm that surveyed 80,000 workers world-wide between August 2020 and March 2022. Many of the new jobs are in software and information technology, as well as tech-related roles in logistics, finance and healthcare. New data from the Current Population Survey and LinkedIn also suggest the pandemic has helped catapult more workers into more upwardly mobile careers.

[Tech job postings](#) have boomed over the past two years as work, shopping and other aspects of daily life have gone more digital. At the same time, millions of Americans [quit their jobs](#), with some sitting on the sidelines and others finding new ones with higher salaries. Companies have struggled to hire all the talent they need, so many have dropped prequalifications like prior work experience or a four-year college degree.



UP, CSX blame labor shortage for volume, service declines

21 Apr 2022

Intermodal volumes and service metrics declined in the first quarter for CSX and UP, though both US railroads believe they can hire more labor and haul more ocean containers in the coming months.



Where are the workers?

Warehouse Workers



Truck Drivers





Port Congestion Solutions to Date

Peel-off yards and empty depots



1,024 x 768

American Journal of Transportation

Pop-up container yards help maintain the flow of record volumes through Port of Savannah | AJOT.COM

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LOGISTICS REPORT

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The ports of Los Angeles and Long Beach say containers are moving off crowded docks even though a planned penalty program has been repeatedly pushed back

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Shipping containers were stacked at the Port of Los Angeles in November. The backlog has declined since then.
PHOTO: MARIO TAMA/GETTY IMAGES

By [Paul Page](#) [Follow](#)
May 17, 2022 4:17 pm ET





Supply Chain Solutions to Date

- Data sharing and visualization
- Dwell time limits / demurrage fee threats
- Raising wages/benefits




NS alters free time, storage policies to speed cargo flow

15 Apr 2022

Norfolk Southern is shortening how much free time a shipper will have before storage penalties apply, an effort to speed cargo flow as the railroad struggles to provide reliable intermodal service.

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PHOTO: MARIO TAMAI/GETTY IMAGES

By Paul Edge [Follow](#)
May 17, 2022 4:17 pm ET

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Railroad industry officials have criticized proposals to more aggressively regulate the industry's operations.
PHOTO: KYLE GRILLOT/BL OOMBERG NEWS

By Ted Mann [Follow](#)
Updated April 22, 2022 3:20 pm ET

Days on Terminal	Daily Charge	Cumulative Charge
9	\$100	\$100
10	\$200	\$300
11	\$300	\$600
12	\$400	\$1,000
13	\$500	\$1,500
13 or more	Incremental \$100 increase per day with no limit	\$1,500 and up



What's Around the Corner?

- China reopening
- Inflation
- WC Longshore Labor Negotiations
- CARB Rules in California
- Efforts to "green" supply chains





Geopolitical Challenges

- Trading and Tariffs
- Wars and Conflicts



For Your Safety During Fueling
FAILURE TO FOLLOW THESE WARNINGS COULD CAUSE SERIOUS INJURY OR DEATH

- No Smoking**
- Turn Off Engine**
- Fill portable Containers on the Ground**
- Discharge Your Static Electricity Before Fueling**
- If a Fire Starts, Do Not Remove Nozzle**
- Never Allow Children to Use Pump**
- Do Not Leave Pump Unattended When Pumping**
- Health Warnings:**

Use your cell phone number to enroll in the Exxon Mobil Rewards+™ program.
*You may purchase without signing up. By entering your phone number, you consent to receive automated texts for Exxon Mobil Rewards+ enrollment, participation and marketing. Text frequency varies & SMS/data rates may apply. Learn more at exxon.com/terms.

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ALL TAXES INCLUDED

SELF SERVICE ISLAND
WARNING
IT IS UNLAWFUL AND DANGEROUS TO DISPENSE GASOLINE INTO UNAPPROVED CONTAINERS ...
NO SMOKING STOP MOTOR DURING FUELING OPERATION
BY ORDER OF STATE FIRE MARSHAL

Stop engine No smoking

Purchase \$ 73.65
Gallons 17.133

ALCOHOL CONTENT
Max. % by Volume
Ethanol 10%

Disabled Access
Customers that cannot reach upper buttons:
-Remove nozzle
-Wait 15 seconds
System will alert cashier who will remotely authorize desired transaction.
-After fueling, replace nozzle
-Please pay cashier
-If unable to activate, please see cashier

Regular 4.29
Extra 4.69
Supreme+ 4.99



Decarbonization Emphasis

- Natural disasters are becoming worse and more frequent
- Technological challenges with ZE transportation
- Analysis of the entire supply chain (e.g., sourcing, inputs to production, operations, etc.)





Resiliency Opportunities

- Workforce development
- International geopolitical monitoring and reporting
- Key commodity sourcing options





Research Needs

OPERATIONAL CHANGES

- PSR – does it need to be revisited?
- Can cargo be pushed out of the ports instead of pulled out?
- Cargo visibility options – coordination opportunities between “supply chain control tower” strategy and port visualization strategies; state-to-state visibility of real-time cargo flows

EFFORTS TO “GREEN” SUPPLY CHAINS:

- National versus statewide regulations
- Inequitable distribution of the burden (e.g., consumers are arguably not paying their fair share)
- Focus is on “tail pipe” rather than life cycle GHG impacts

Questions?

THIS CONTAINER HAS BEEN DESIGNED AND TESTED FOR 40,000 KILOGRAMS (88,000 LBS) OF NET MASS. MAXIMUM PERMITTED LOAD (GROSS WEIGHT) IS 44,000 KILOGRAMS (96,880 LBS).

ATTENTION
THIS CONTAINER
MUST BE REPAIRED
ONLY
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NET
62.2
33
1.1
CU. CAP.

OPDU 205271 4
22G1

30,480 KG

BizFed Supply Chain Discussion (May 2022)

Vince Fong, Central Valley, CA Assembly Member (Republican)

- Ports select committee rep
- Vice Chair of Transportation Committee
- Exports and manufacturing impacts in his region
- Supply Chain Czar position at the State level is being considered in proposed legislation in both the State Assembly and Senate
- AB 2798 – streamlining legislation for approval of supply chain congestion relief projects (e.g., pop-up container depots)
- 24/7 ports only work if the warehouses or other destinations are open
- Warehouses cannot go 24/7 due to a current labor shortage
- Data sharing – cargo visualization throughout the supply chain
- Expanding rail capacity
- Annual allocations for investing in supply chain infrastructure is needed in CA like is done in other states

Patrick O'Donnell, Long Beach, CA Assembly Member (Democrat)

- Ports and Goods Movement select committee rep
- Vice Chair of Transportation Committee
- Tax credits for domestic manufacturing
- Draft legislation to ban warehouse development and to ban freeway construction are being floated

BizFed Supply Chain Discussion (5/22)

Lupe Valdez, UP

- Push for sustainability and ZE locos and switchers brings reliability issues and potential exacerbation of supply chain disruptions
- Vice Chair of Transportation Committee
- Tax credits for domestic manufacturing
- Draft legislation to ban warehouse development and to ban freeway construction are being floated

Matt Schrap, HTA

- Average turn time is 90 minutes with common occurrences of 2 hours and outliers as high as 5 hours
- IPI rail cargo is clogging up marine terminals
- Warehouses are full so BCOs are using terminals for storage
- Truck yards are being used for storage
- Missed appointment fees, fees for showing up before your appointment, demurrage fees
- Per diem fees charged to trucking companies for not returning an empty; terminals are not allowing empty returns
- Don't listen to everything you read in the NYT – drivers are paid for the time that they are waiting at ports; part of the contracts even for independent owner operators
- Legacy Drayage Rule goes into effect Jan. 1, 2023 will remove 4,500 drayage trucks from the system

BizFed Supply Chain Discussion (5/22)

Matthew Means, Watson Land

- Not enough warehousing and CA rules and regs make it difficult to construct more
- Vice Chair of Transportation Committee

Rick Cameron, POLB

- Not enough warehousing and CA rules and regs make it difficult to construct more
- Pop-up yards can't happen here because of CEQA
- LBCT (Middle Harbor) took 20 years from submission of the construction permit application to completion
- Pier B RY design and environmental analysis began in 2007 and just broke ground for Phase I in 2021

Thomas Jelenic

- Ports select committee rep
- Can cargo be pushed out the ports instead of pulled out? What would it take?
- Recession is the only foreseeable solution to the current supply chain crisis

Selwyn, restaurant owner

- Ingredients/supplies are not available
- Wage pressure and difficulties hiring/retaining staff
- Increases in pricing and lack of menu items is causing loss in customers and business failures

Lance Hastings, manufacturing association

- Domestic supply shift would take 20+ years to get there
- Redundancy is needed in the supply chain - companies are moving their swiftly

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Lance Hastings, manufacturing association

- Domestic supply shift would take 20+ years to get there
- Redundancy is needed in the supply chain – companies are moving their swiftly
- We are 2 years into this supply chain crisis, and legislators still do not understand JIT impacts (JIT inventory, production, and consumption)
- We need to educate CONSUMERS – they are part of the problem and may not understand their role in it

Jim Stavis, manufacturer

- Steel purchasing shifted to domestic producers when the Trump tariffs went into effect
- Mariupol steel factory produced the pipes they sourced; finding another source for that pipe resulted in a 6-month delay in a project