



FREIGHTWAVES

The #1 Source for Navigating the Freight Markets

Future of Freight
Smoky Mountains Mobility Conference
October 25, 2023



Daniel Pickett

Chief Technology Officer @ FreightWaves



- B.S. Computer Science, CFA, MBA
- 15 Years Software/Quant in Finance
- 6 Years Supply Chain Data Science & Software
- Freight Data Nerd Before It Was Cool (Pre-COVID)

ENABLING INSIGHTS

FreightWaves is the world's leading provider of freight market forecasting, data, news and analysis.

Logistics and supply chain firms depend on FreightWaves for benchmarking, analytics, monitoring and forecasting of pricing, capacity, demand, energy and carbon intelligence.



Camera 2 1080i 24 FP 1/60 15.1 +4dB

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LIVE

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Shippers



KraftHeinz

amazon

SAMSUNG



MARS



TEMPUR
+SEALY



DOLLAR TREE
FAMILY DOLLAR



L'ORÉAL



the Wonderful
company

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ALVAREZ & MARSAL

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IMPALA ASSET MANAGEMENT

STIFEL



Transportation & Freight Tech Providers

XPO Logistics

ArcBest
More Than Logistics

CONVOY



DESCARTES



WERNER
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ECHO



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SCHNEIDER



FedEx



TRANSPACE



LANDSTAR

ARRIVE
LOGISTICS



MODE
TRANSPORTATION

Emerge

GLOBALTRANZ
WORLDWIDE
EXPRESS



DSV
Global Transport and Logistics





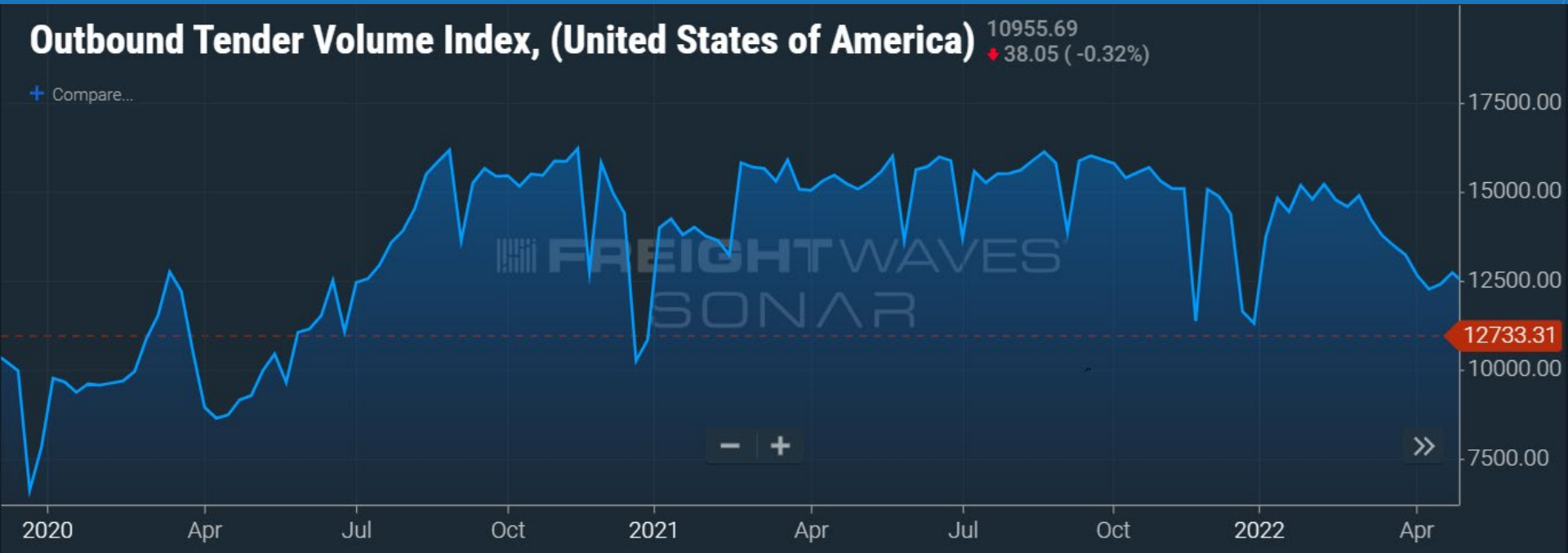
A very brief history of North American supply chain (COVID-onward)



Tender Volumes in the time of COVID

Outbound Tender Volume Index, (United States of America) 10955.69 ↓ 38.05 (-0.32%)

+ Compare...

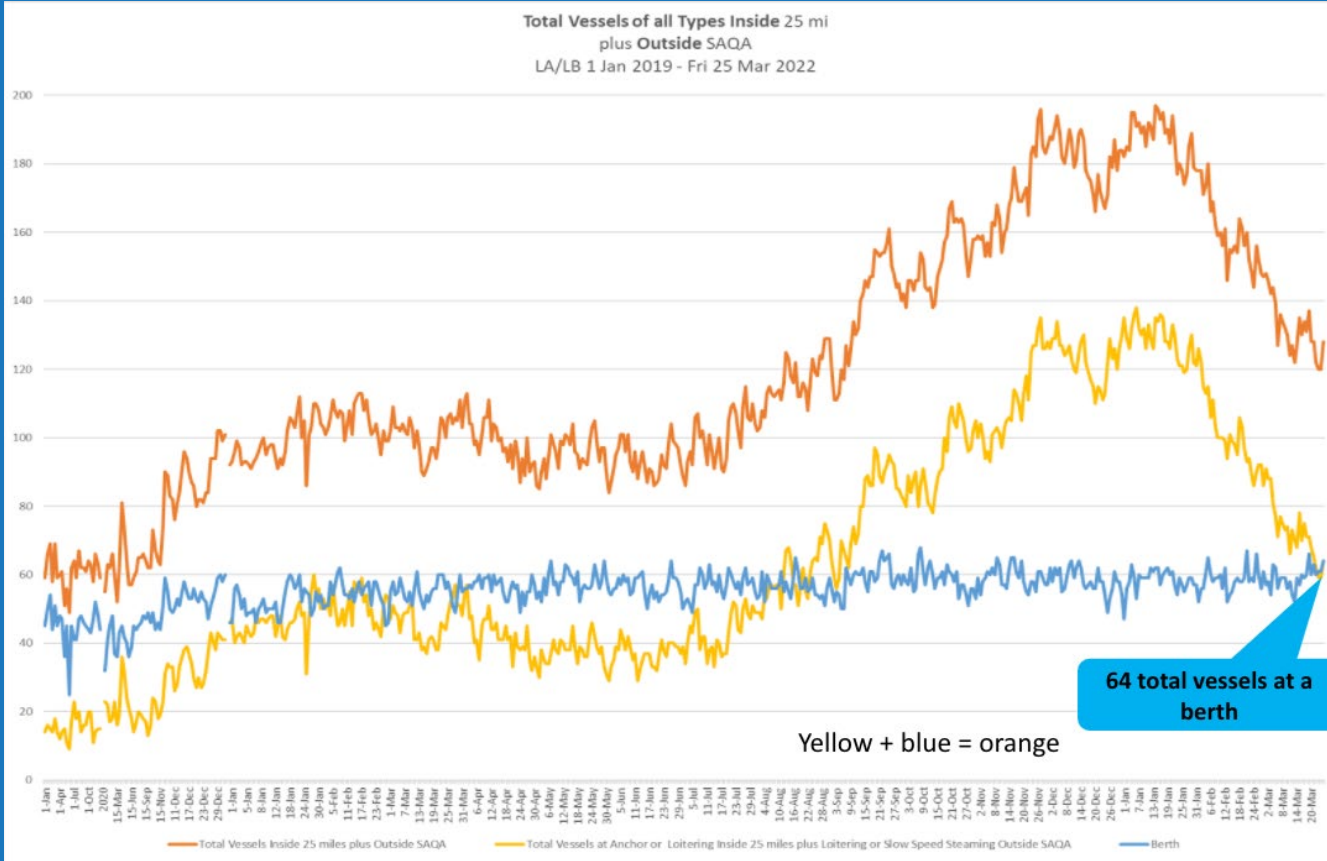


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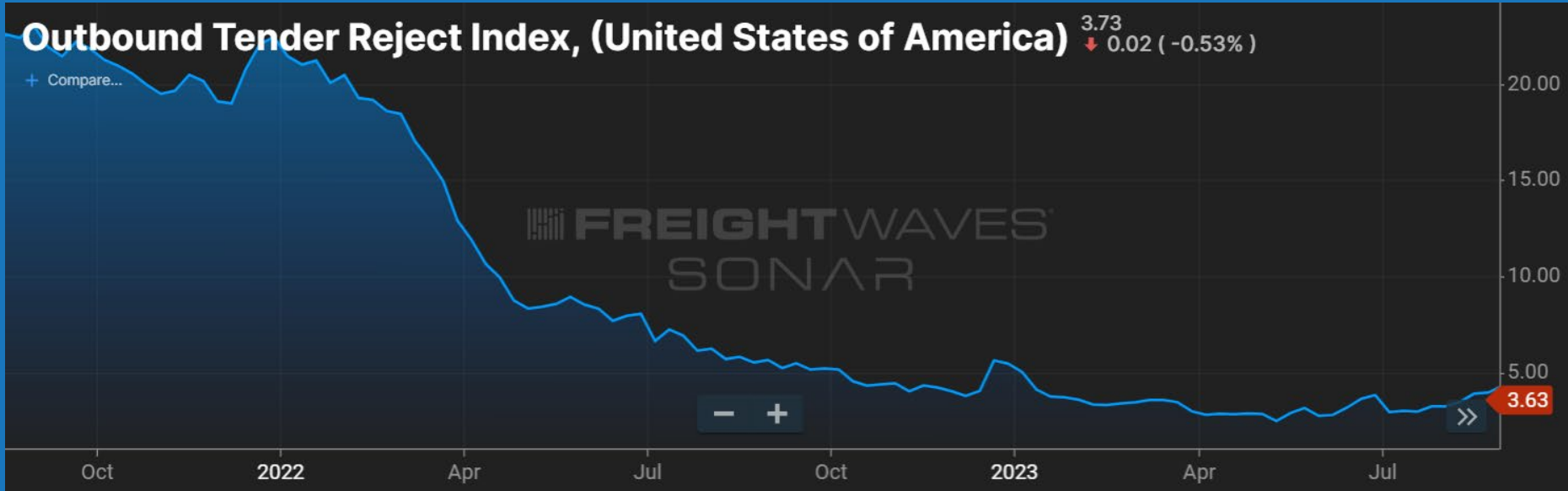


LA/LB Port Congestion



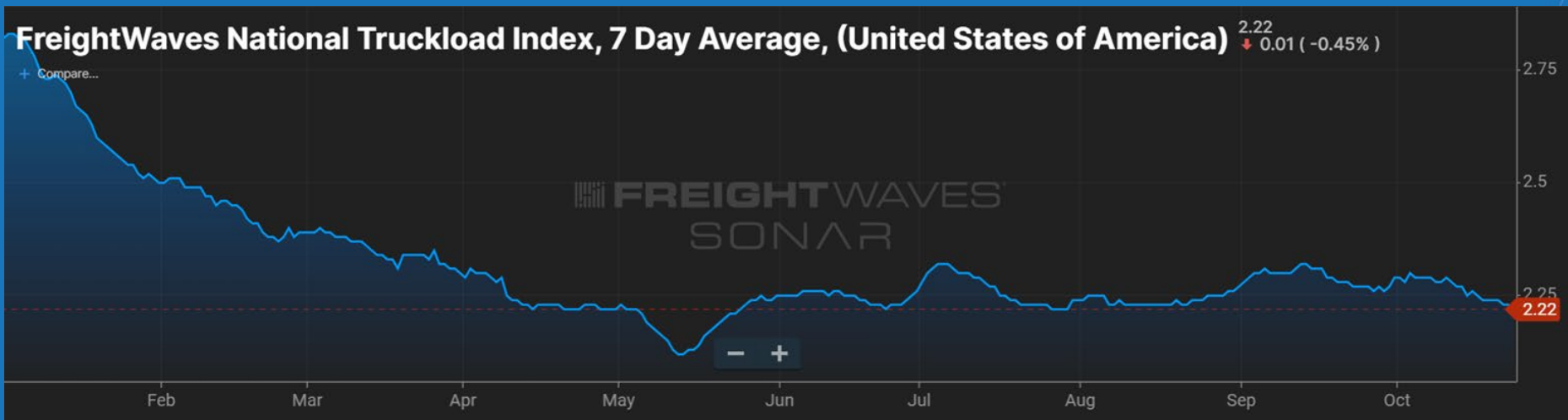


This is the end.....of the stimulus





This is the end.....of the stimulus





Casualties of Freight Stagflation





Still Overcapacity for 8-16 months





Cybersecurity in Freight



*“Amateurs talk strategy,
professionals talk logistics.”*

-U.S. Gen. Omar Bradley





Infrastructure is under (cyber) attack

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State sponsored attacks on critical infrastructure doubled from 20% to 40% in the last 2 years.

Microsoft Digital Defense Report 2022



Logistics is Critical Infrastructure

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The Heart Center of the Global Supply Chain

READ WATCH LISTEN NEWSLETTERS SONAR EVENTS DISCOVER RESOURCES ABOUT US

Home / News / Business / Truckstop.com says ransomware knocked its sites offline

Business Cybersecurity News Technology Truck Driver Issues Trucking Trucking Risk & Compliance Truckload Freight

Truckstop.com says ransomware knocked its sites offline

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The Heart Center of the Global Supply Chain

READ WATCH LISTEN NEWSLETTERS SONAR EVENTS DISCOVER RESOURC

Forward Air reveals ransomware attack, warns of revenue hit

Trucking and logistics firm says recovery to be largely finished this week

Nate Tabak • Monday, December 21, 2020

Yesterday we shared a notice regarding an ongoing IT infrastructure outage and can confirm today that this outage appears to be the result of a cyberattack.

While we are unable to share specific details at this time, our terminals and drivers are effectively picking up and delivering freight while we work through this event. We're working as quickly as possible to resolve this issue and to return to business as usual.

We are immensely grateful for the dedication and responsiveness of our more-than-22,000 employees and the way they've banded together to keep serving our customers and each other.

We also extend our appreciation to customers and vendors for their patience and support during a challenging time.

We will continue to share updates with you as we work through this incident.

7:30 AM · Oct 3, 2023



39 Reply Share



Em i s s i o n s f r o m F r e i g h t

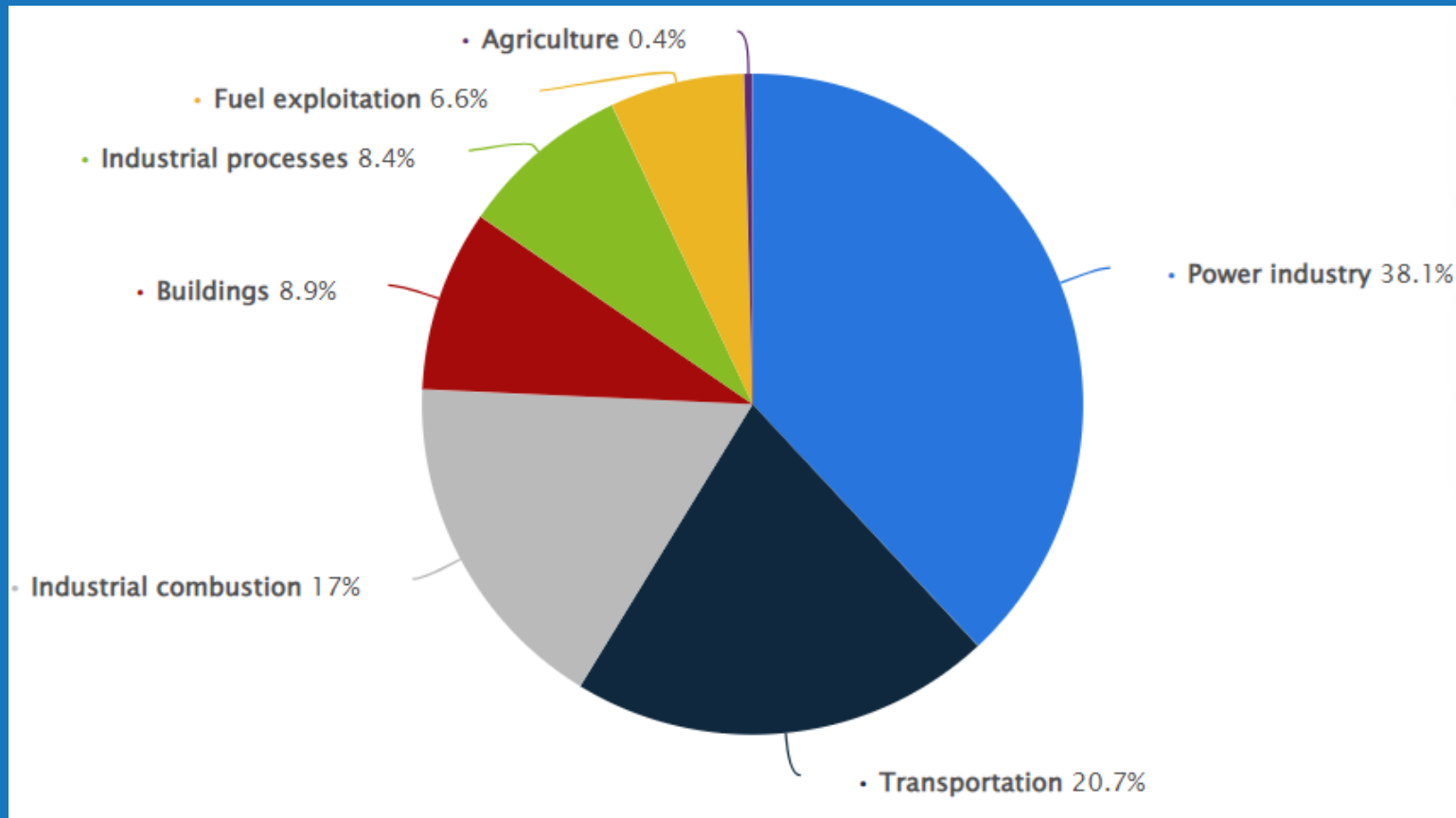


IEA 2022 Emissions by Industry



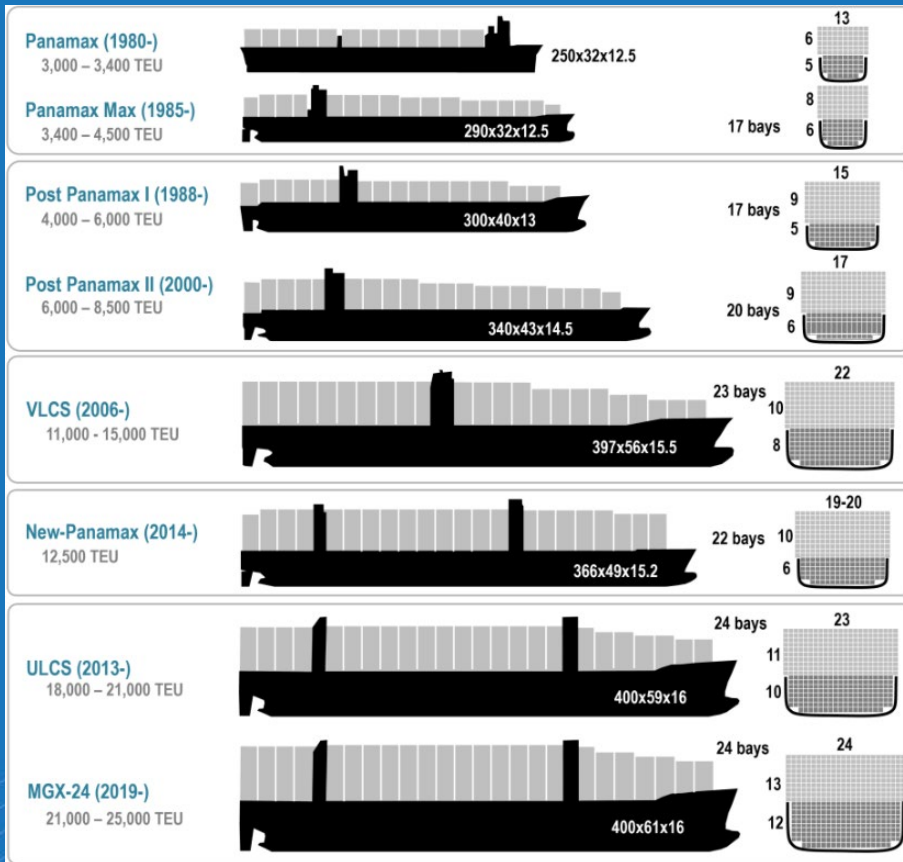


IEA 2022 Em issions by Industry





The Ever Expanding Container Ship





Sometimes the old ways are best

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PepsiCo praises Tesla Semi's performance on long-haul, regional loads

PepsiCo said its 21 Class 8 electric Semi trucks have up to 450-mile range



Noi Mahoney · Thursday, August 10, 2023

What is Pepsi Hauling via Tesla ?

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PEPSICO



Tropicana



Tostitos



What is Pepsi Hauling via Tesla ?





What is Pepsi Hauling via Tesla ?

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Aadvanced
Driver
Assist
Systems

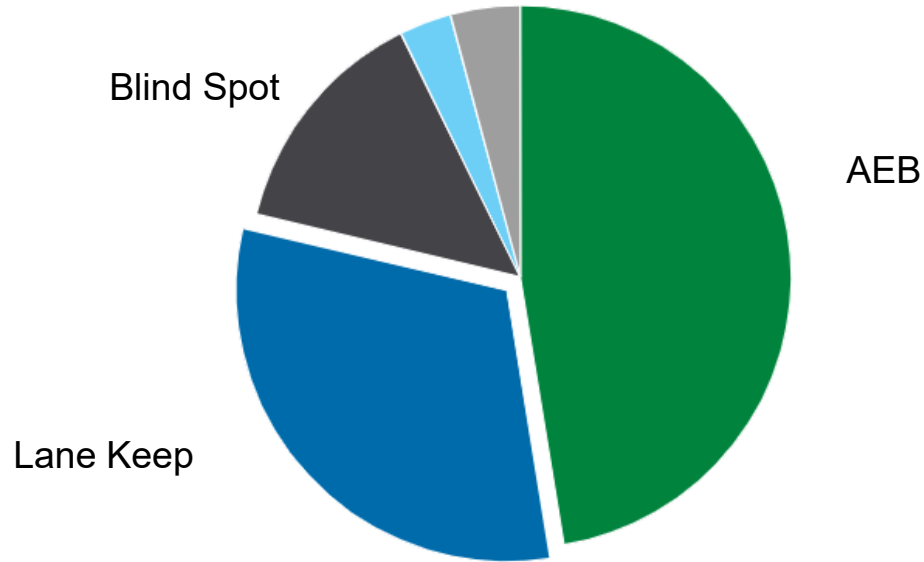


PassCar Collision Prevention (IIHS 62%)

Annual average number of crashes potentially impacted by advanced driver assistance systems, 2011 - 2015



Total potential crashes: 3.59 million (62% of total)



- Group 1 - Forward collision prevention
- Group 2 - Lane keeping assist
- Group 3 - Blind spot detection/intervention
- Group 4 - Pedestrian automatic braking
- Group 5 - Rear automatic braking



Tesla Autopilot

Tesla

Tesla Autopilot Is Over 9 Times Safer than Human Drivers in Cars of Other Manufacturers

📅 Jan 10, 2023 👤 By Eva Fox 💬 3 Comments

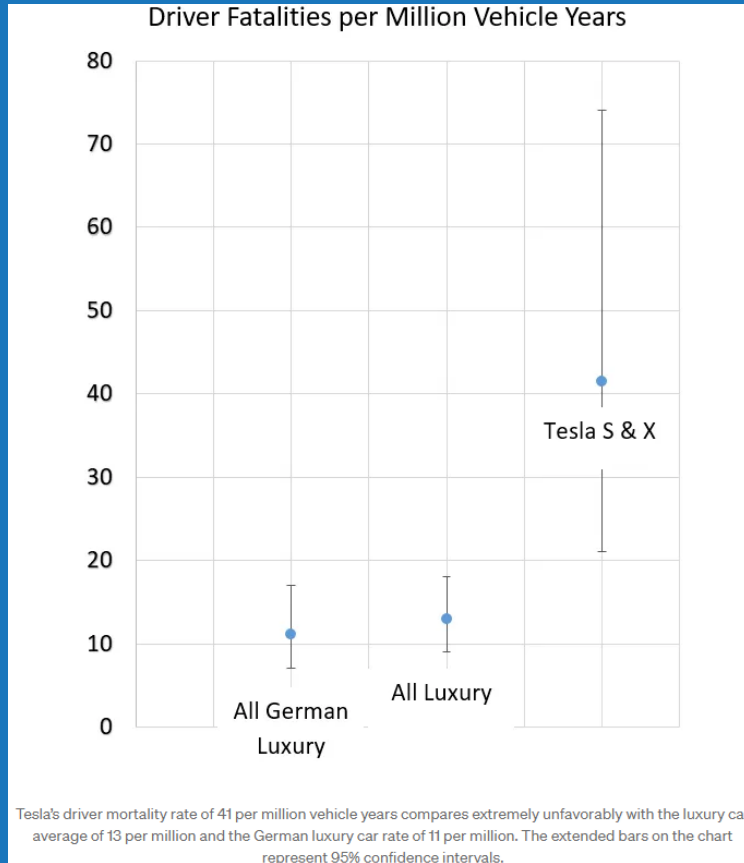
Fewer Total Crashes



AutoPilot Fatalities Tell Another Story

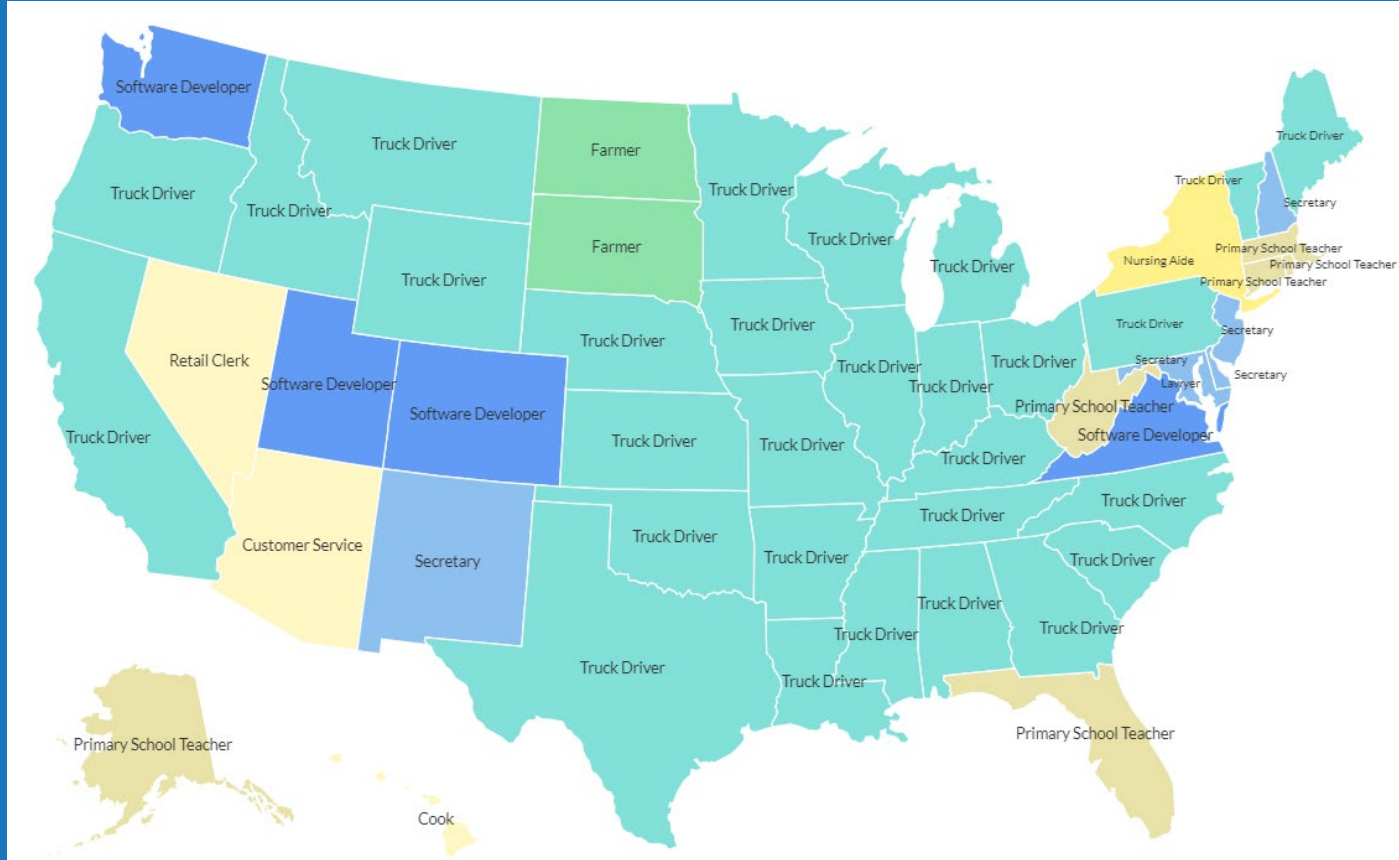
Fewer crashes, but more (normalized) fatalities

Current State:
Driver Assist = Good
Driver Replace = Unfinished

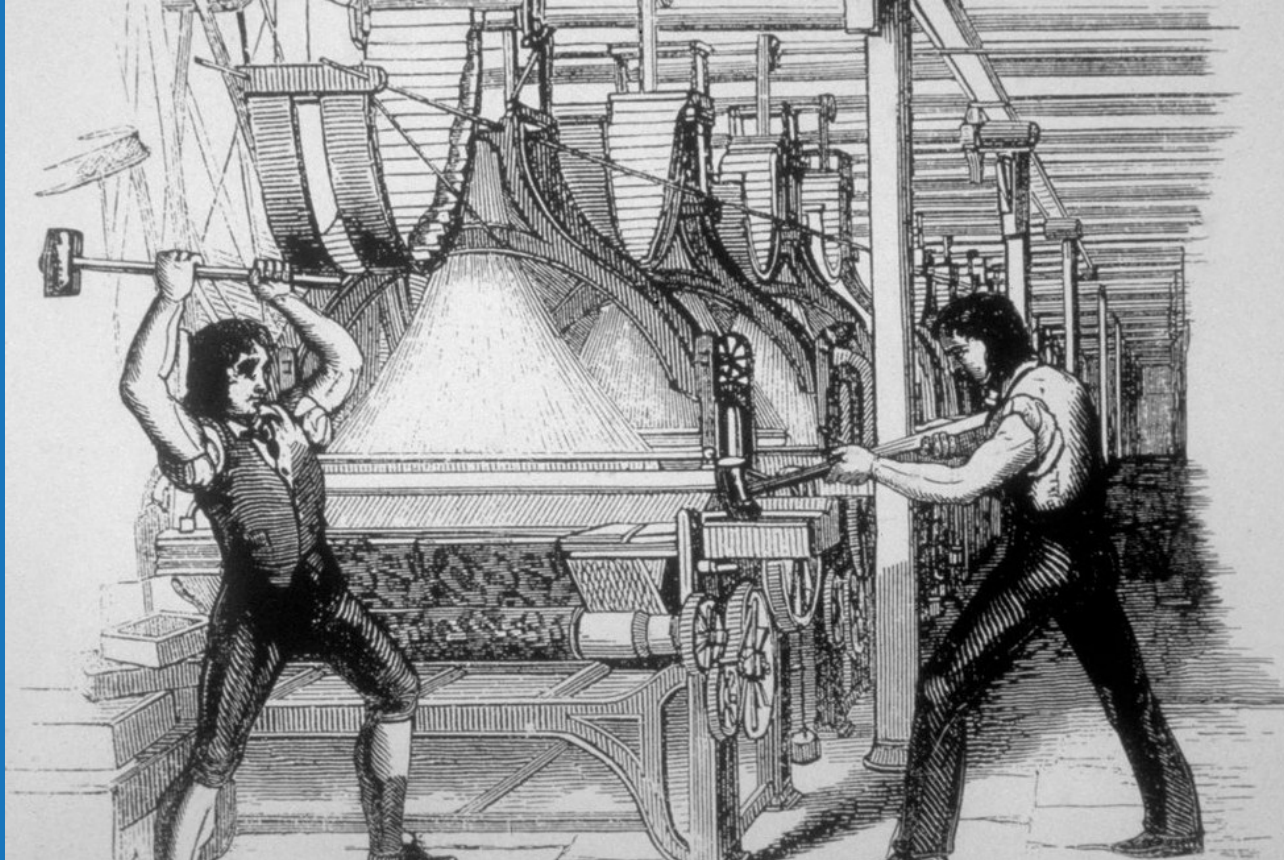




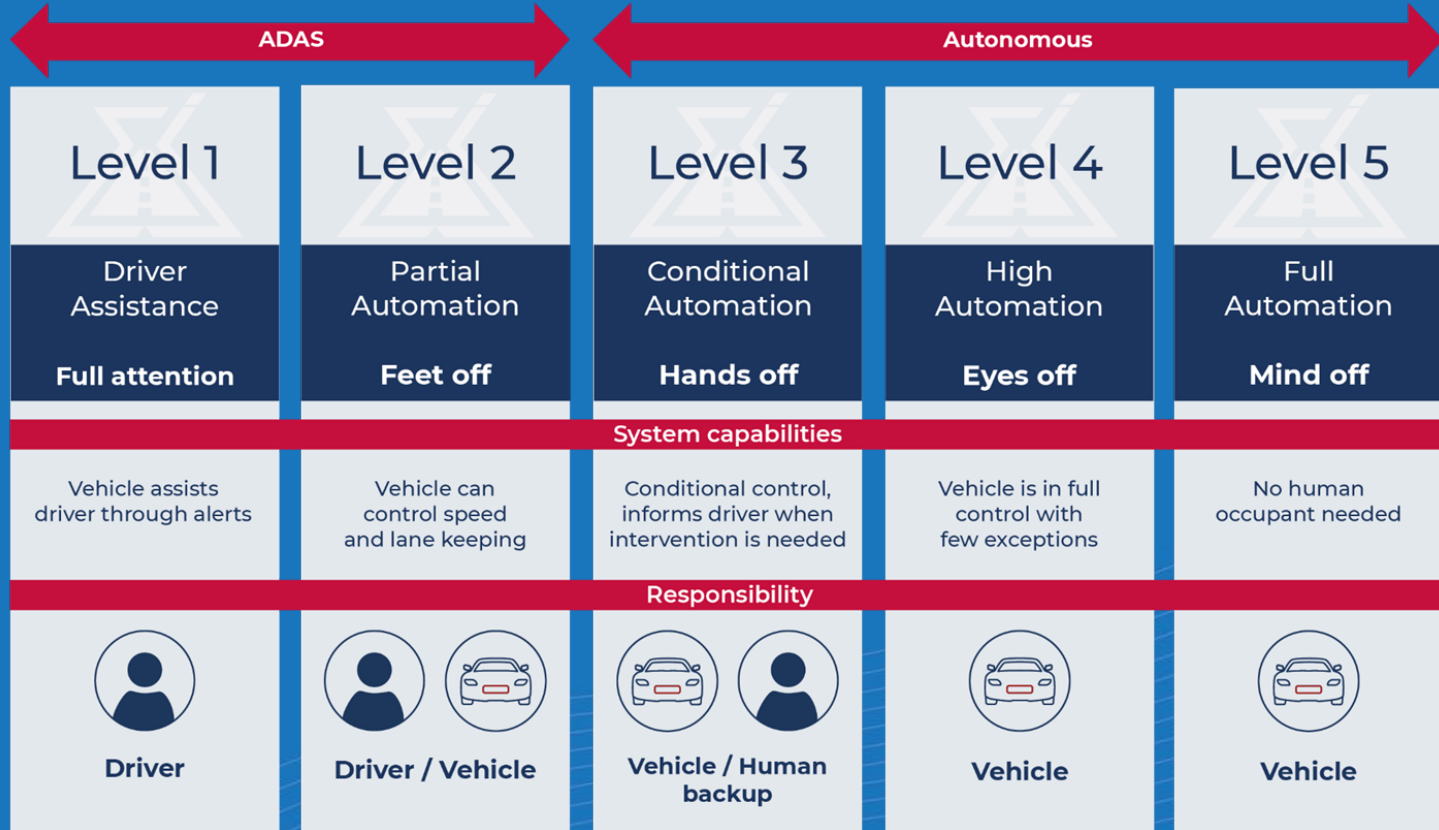
#1 Job in America ?



Fear Not, Fellow Luddites



Technology Revolutions Are Slow



+ 1-50 Years for Regularors



Re-shoring



Offshoring

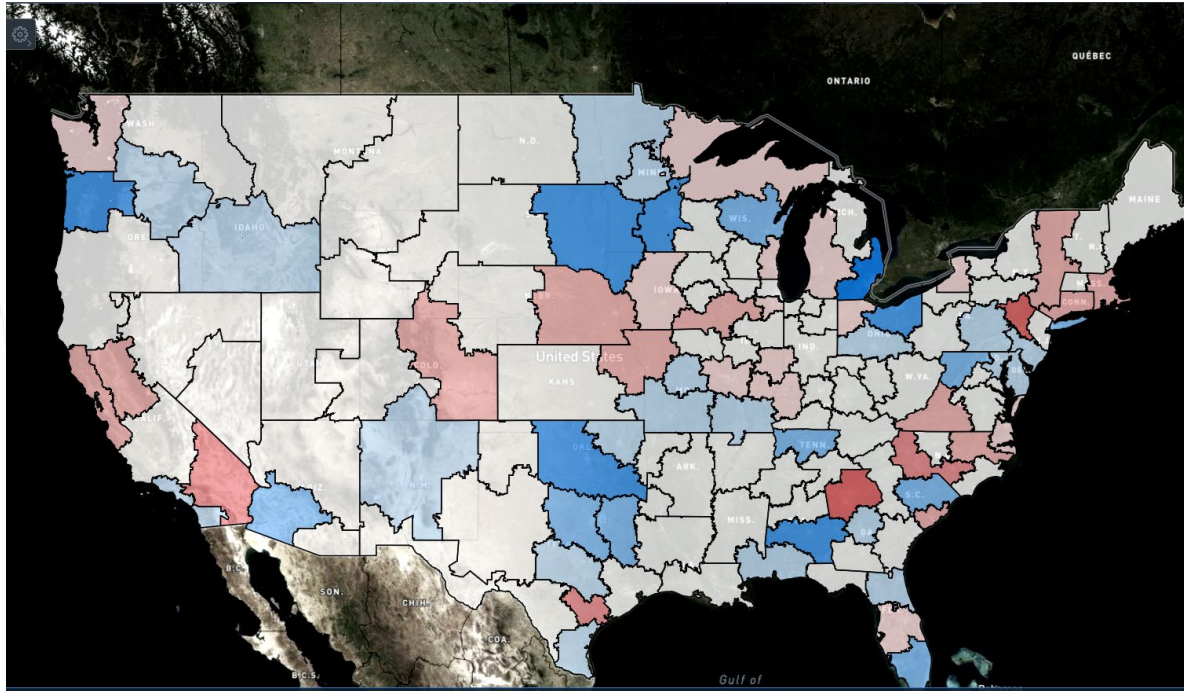
Nearshoring

Reshoring



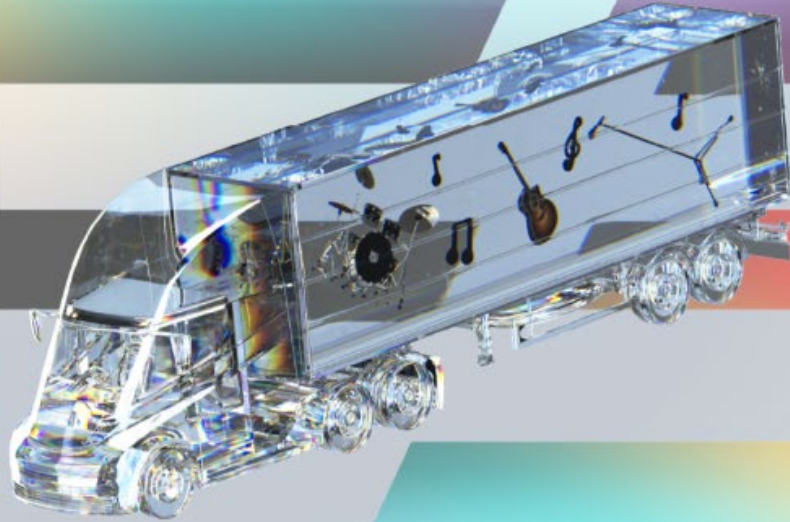
Reshoring Supply Chains


- Blue markets indicate market share growth in truckload demand y/y.
- Border markets (**watch out Texas**) growing, larger markets (ATL,ONT) diminishing.




Want to Learn More ?

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FUTURE OF FREIGHT FESTIVAL

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