



RAIL

NARS 2022

Kansas City, MO
May 10, 2022



KOCH – Creating Value. Improving Life.



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Global Employees

62,000
U.S. Based

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AG & ENERGY SOLUTIONS

KBX At a Glance



RAIL

180,000+ loads moving 11MM tons of freight annually

45MM+ annual miles on 177 railroads

16,000 + private assets managed

5 industrial short lines supporting North American facilities



INTERNATIONAL

320,000+ TEU containers annually, largest exporter of U.S. containerized freight

Freight forwarding and NVOCC management

Project and air cargo services worldwide

5 specialty chemical barges



LOGISTICS

2.5MM+ dry van, dray, flatbed, and specialty truck shipments managed annually

2700+ dedicated trucks

Loadshop™ digital freight brokerage platform

Electric and automated spotters and shuttles



TECHNOLOGY SOLUTIONS

Proprietary TMS for all transportation modes, globally

Best-in-class visibility and predictive shipment ETA

Asset management and predictive analytics

Direct integrations with carriers and customer ERPs



Shipping Responsibly

In 2021, KBX Rail customers reduced their CO₂ emissions by over **445,000 metric tons** vs. over the road transportation.

That's about as much as



43 Million
Fewer gallons of
diesel consumed

-or-



½ Million
Acres of U.S.
forest annual
carbon capture

-or-



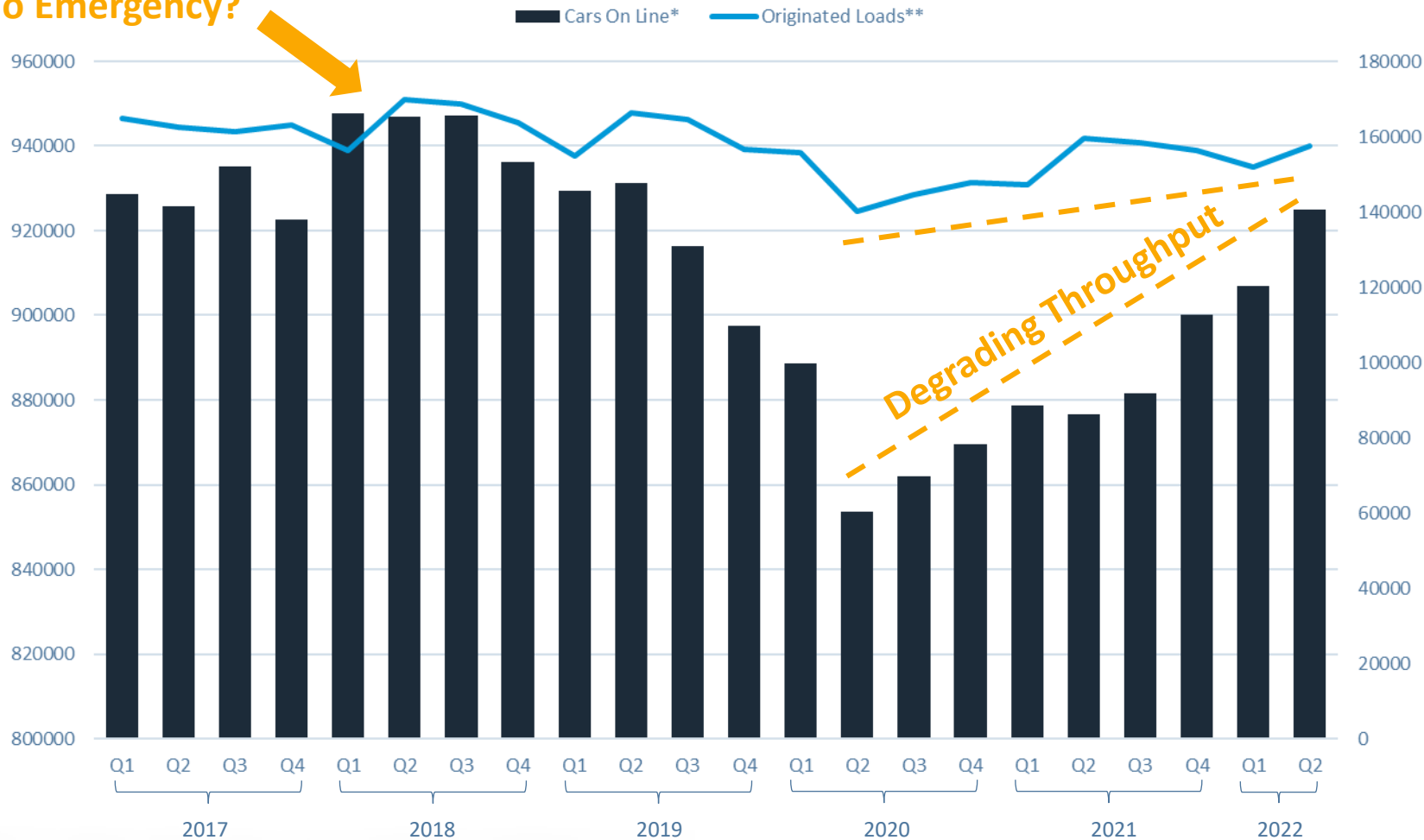
95,000
Passenger
vehicles driven
for one year

Methodology calculated using EPA-420-F-21-049, June 2021 data
Comparisons calculated using U.S. E.P.A. Greenhouse Gas Equivalencies Calculator



Stepping Back

No Emergency?



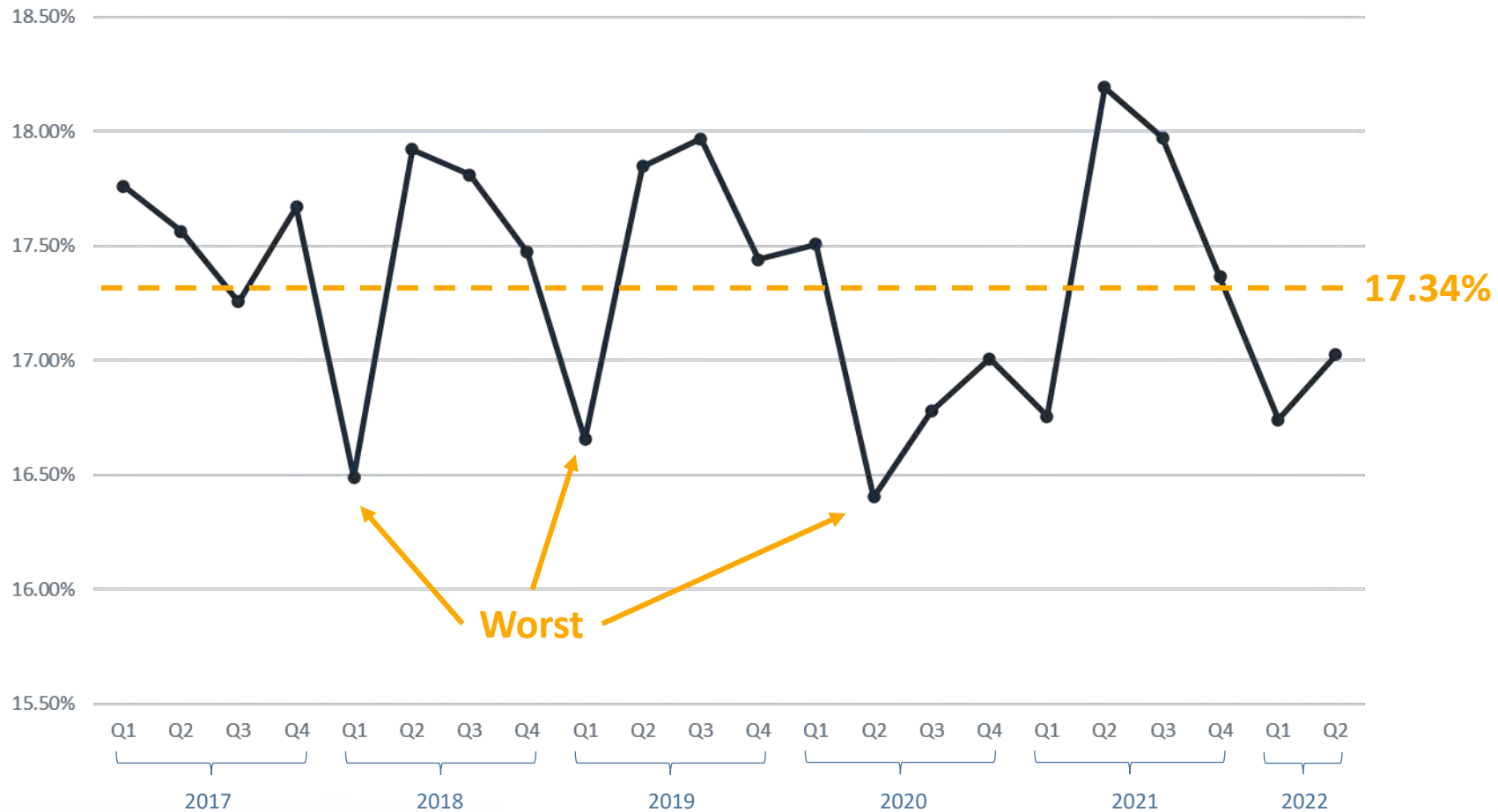
Carloads originated and cars on line for merchandise / manifest commodities - Source: EP 724 Consolidated Service Performance Data

As service degrades, shippers need more cars on line to move the same tonnage

Congested networks spiral downward to meet demand

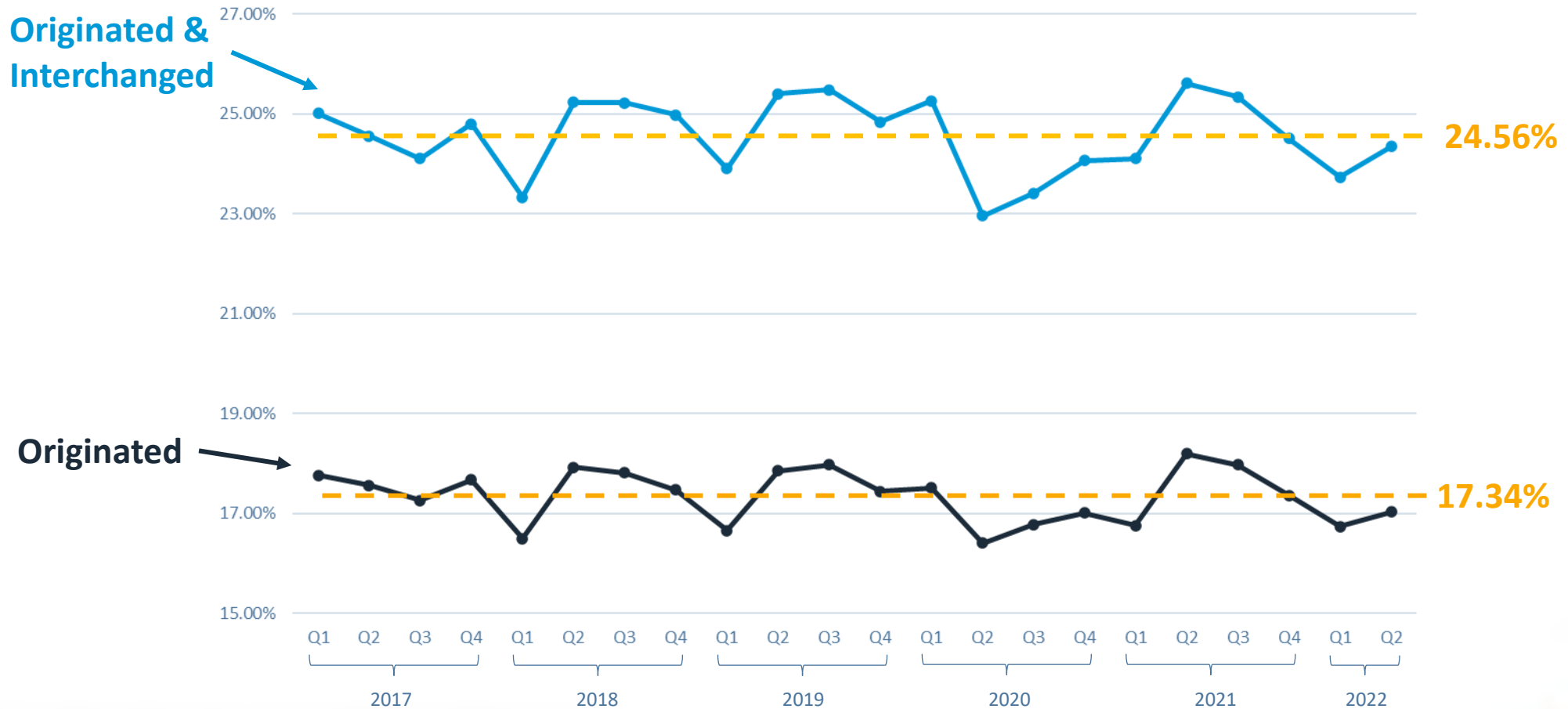
Said another way

% Of Manifest Carloads Originated vs. Total Cars On-Line



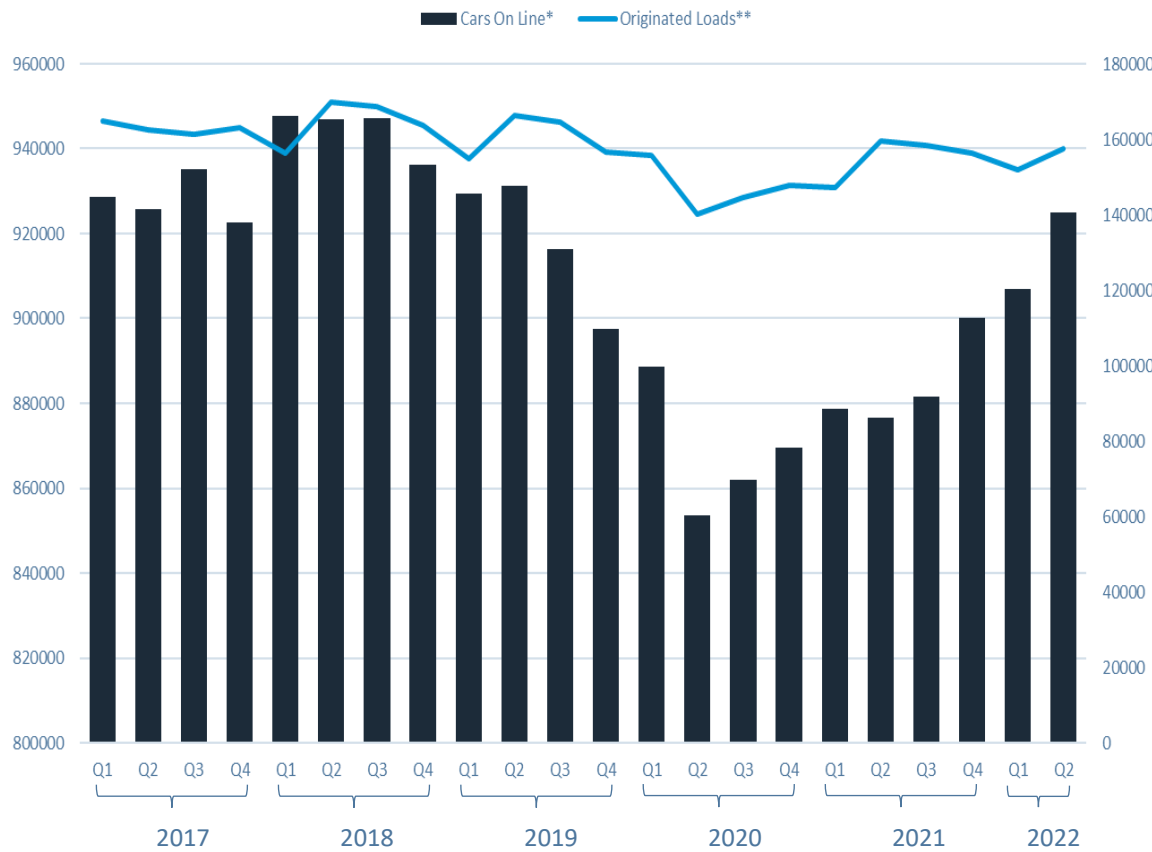
Interchange Problems?

% Of Manifest Carloads Originated & Interchanged vs. Total Cars On-Line

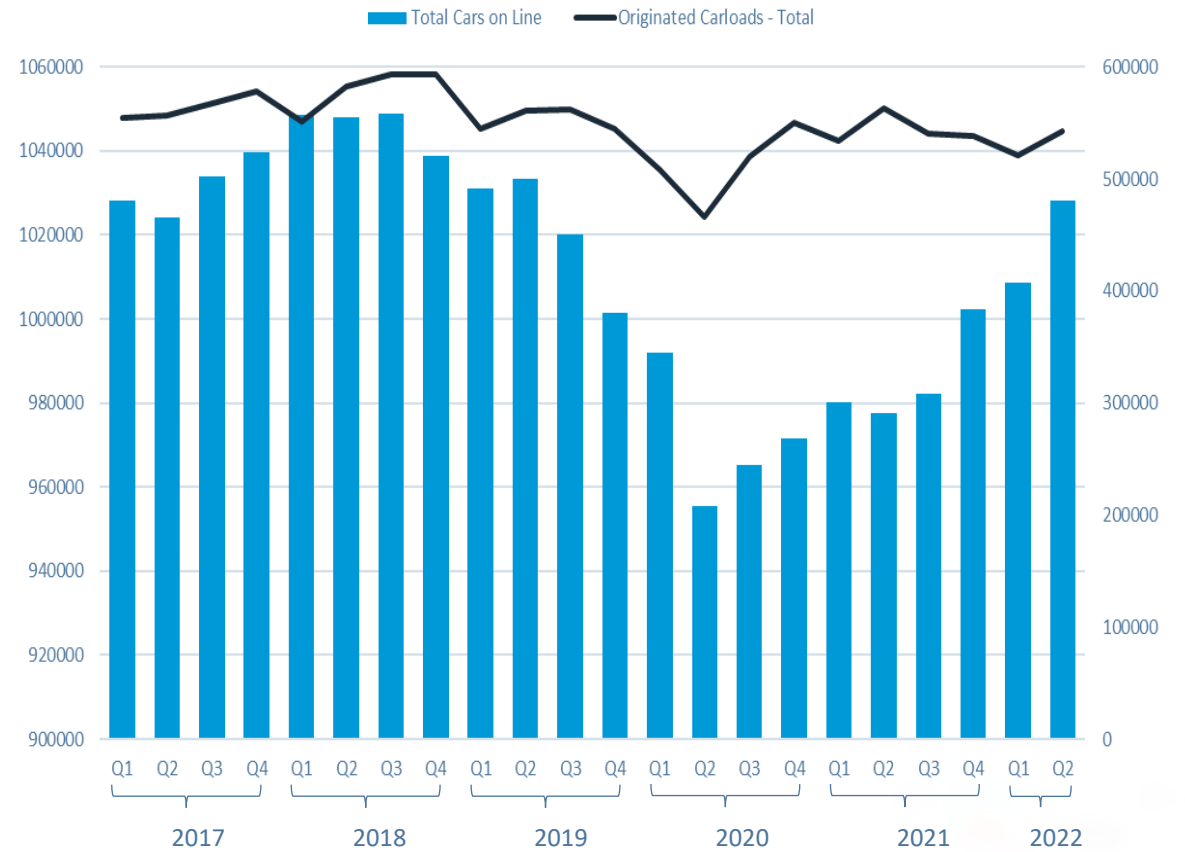


Intermodal / Unit Problems?

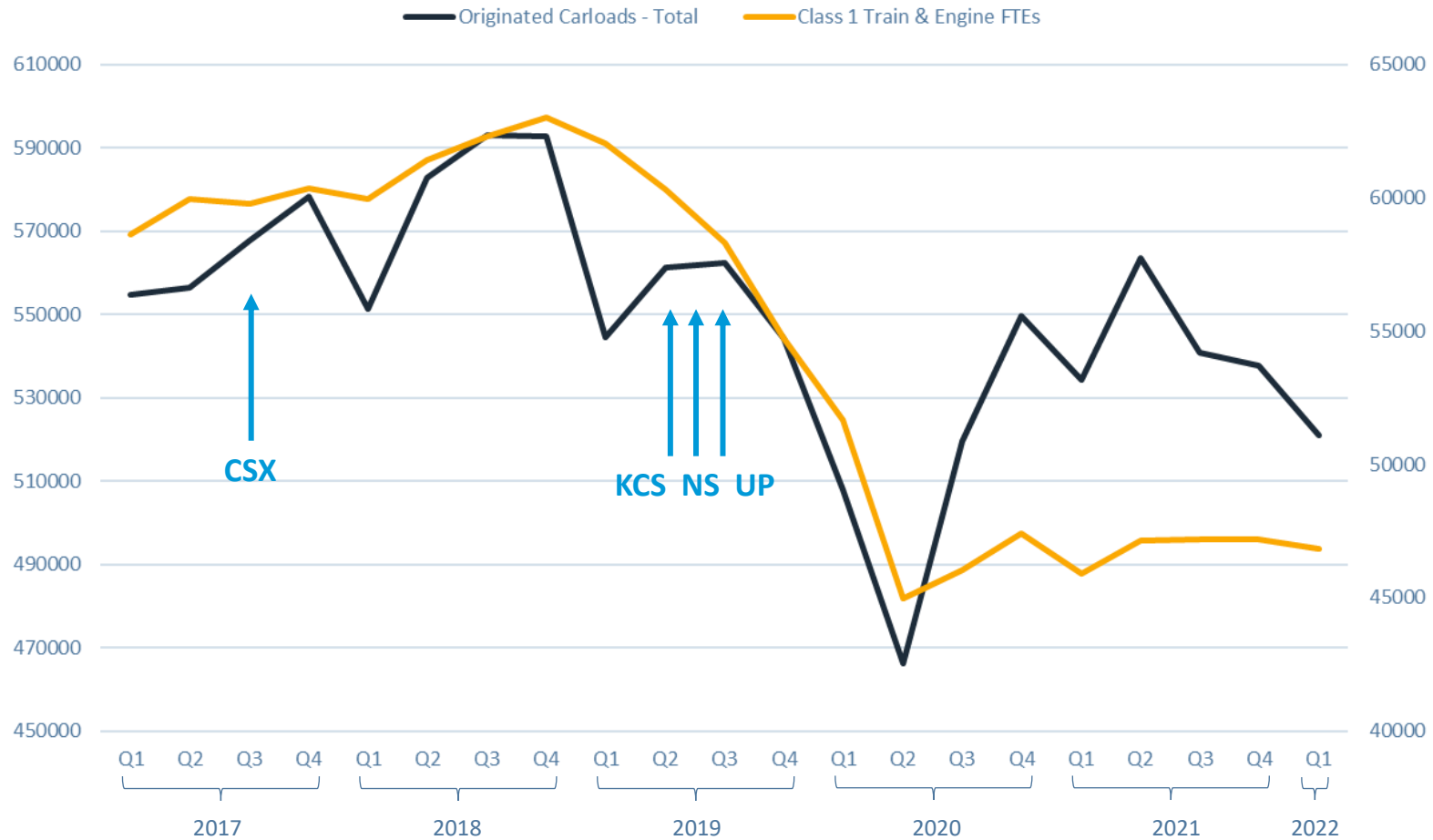
Manifest



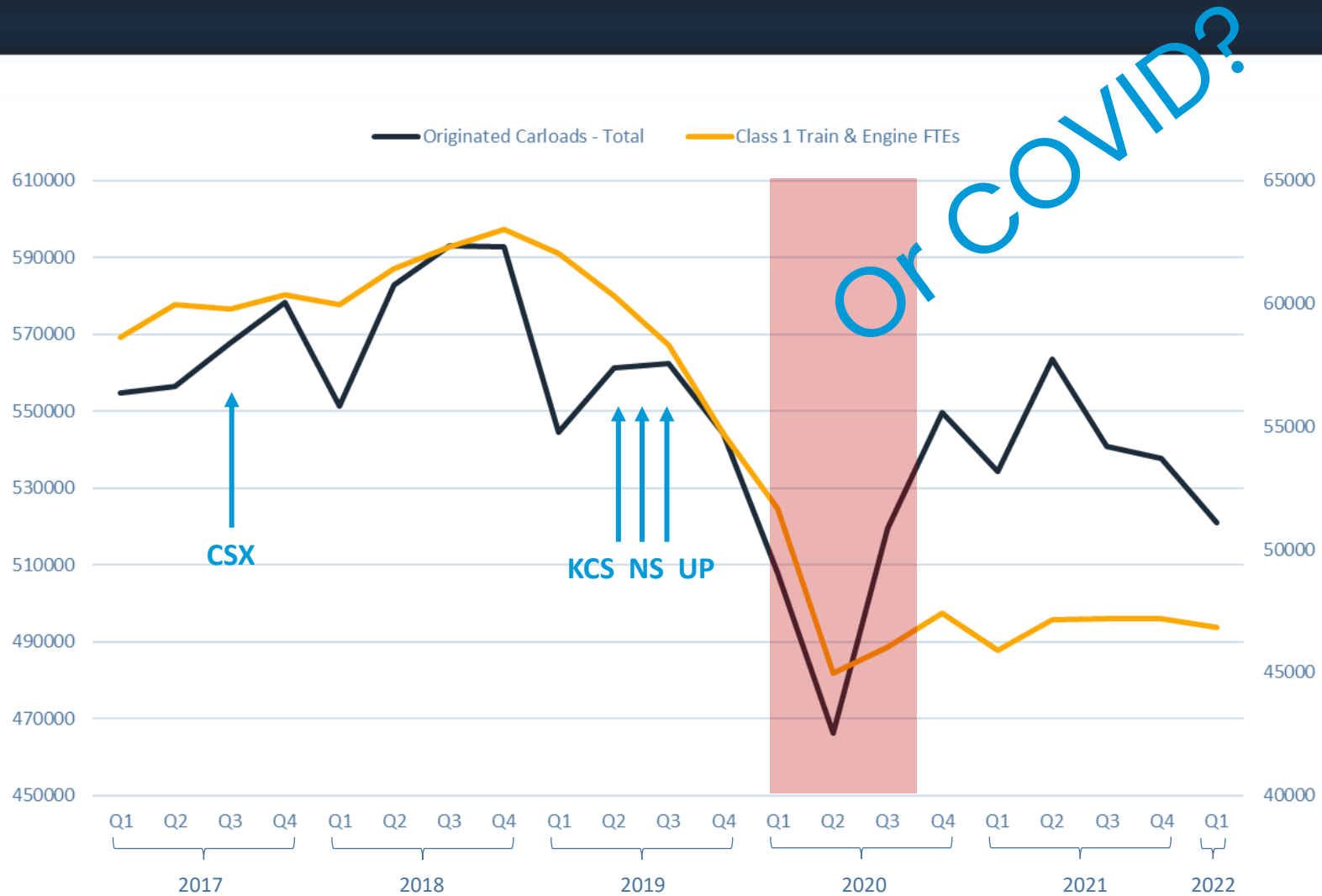
Full Network



What Can We Blame on PSR?

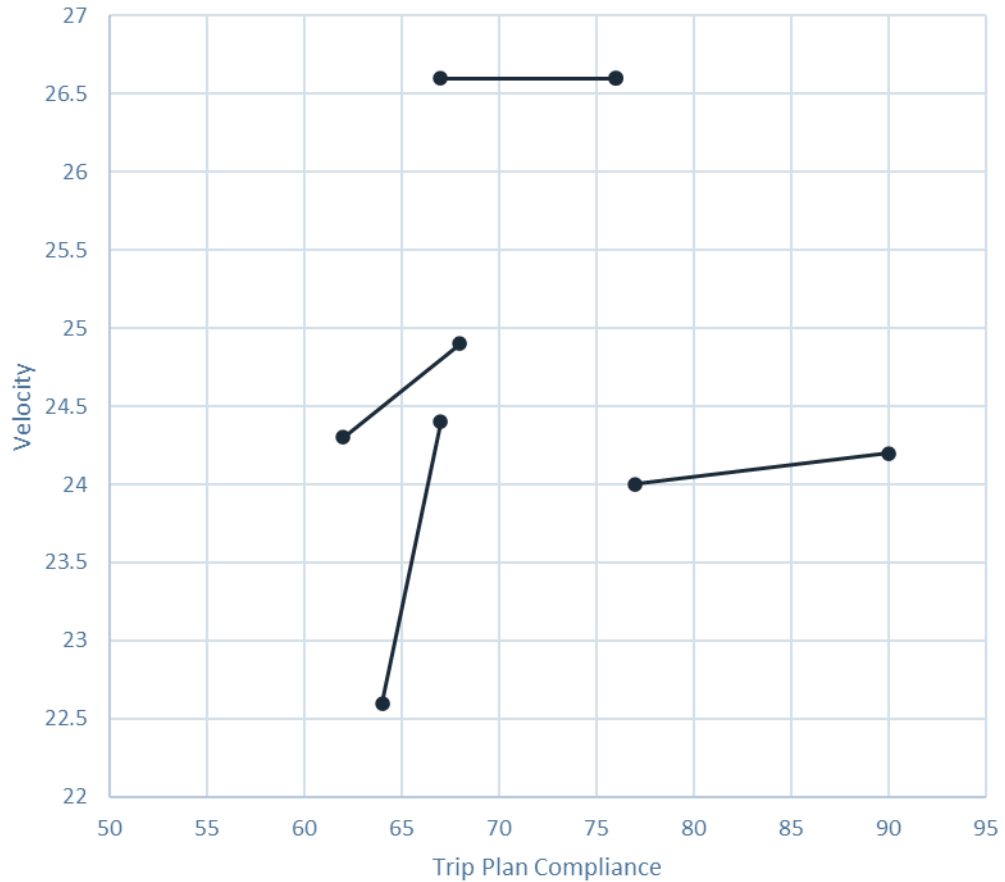


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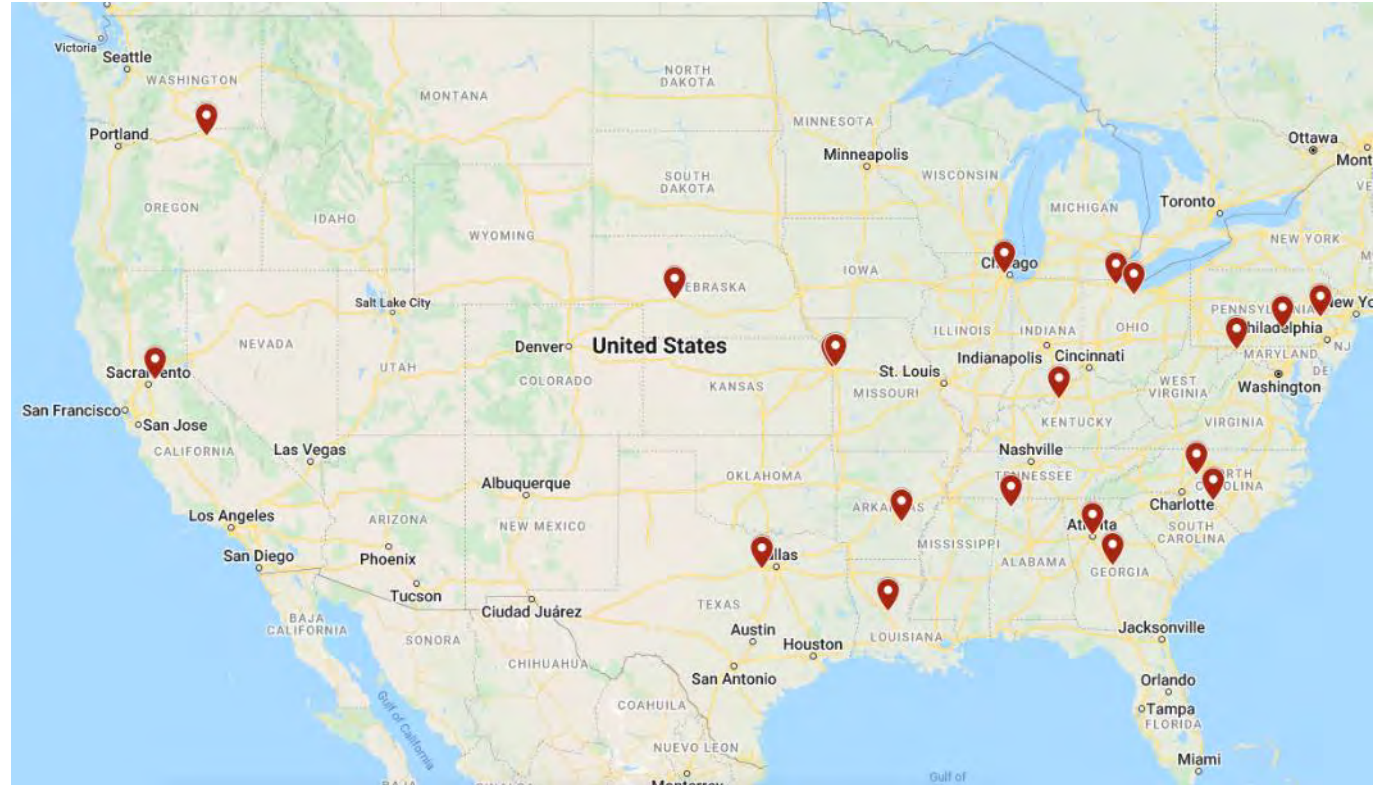


What Else is Missing?

Velocity vs. Trip Plan Compliance – 4 Class 1s YoY



Class 1 Hump Yards Converted or Idled



Many Symptoms, One Root Cause

- Crew cutbacks and furloughs in 2019 and 2020 cut too deep
 - Recall rates are lowest in history
 - Railroads on a hiring spree, but experience is irreplaceable for an efficient network
- Congestion compounds the problem
 - Trains are held out in sidings waiting for yard space, needing more than 1 crew to reach destination
- PSR principles such as block swapping allege that the network “no longer needs” large classification yards
 - Congestion and inexperienced crews sacrifice blocking for fluidity, which only moves the problem down the network

Self-Imposed Rigidity

- The Interstate Commerce Act of 1887 amended by Hepburn (1906) and Mann-Elkins (1910) nearly strangled railroads from the outside until the Staggers Act (1980) opened pricing to the free market.
- Changes such as Rate Reform (EP755, EP756) and Reciprocal Switching (EP711) are met with resistance lest the industry “move backward” to pre-Staggers regulations.
- Will investor sentiment and pursuit of short-term results make the railroads so rigid that they suffocate from within?

The Road Ahead



TE&Y totals are only part of the answer, experience takes time



Abandon legacy furlough models, create a culture where retention is the most valued alternative



Innovate on the classification yard to maintain throughput in all markets



Make network design and service schedules a dialogue, small changes make big differences



Automate and enhance visibility via IoT

Precision scheduled railroads must evolve into resilient scheduled railroads if they are to survive future market disruptions.

“Colossal rigidity...has a very poor record of evolutionary survival.”

– Carl R. Rogers