




STATE RAIL PLAN

Rail Advisory Council
Meeting #2
June 30, 2022

WELCOME TO THE STATE RAIL PLAN RAC MEETING #2

- » Please ensure your microphones are muted
- » To share a comment or question, please unmute yourself or type it in the chat box
- » Log into www.menti.com (code **2703 7883**) on your mobile device or computer to answer polling questions

Go to
www.menti.com



The illustration shows a smartphone screen with the Menti logo at the top. Below the logo, it says 'Please enter the code'. There is a text input field containing the code '2703 7883' and a blue 'Submit' button below it.

Enter the code
2703 7883



WELCOME AND INTRODUCTIONS

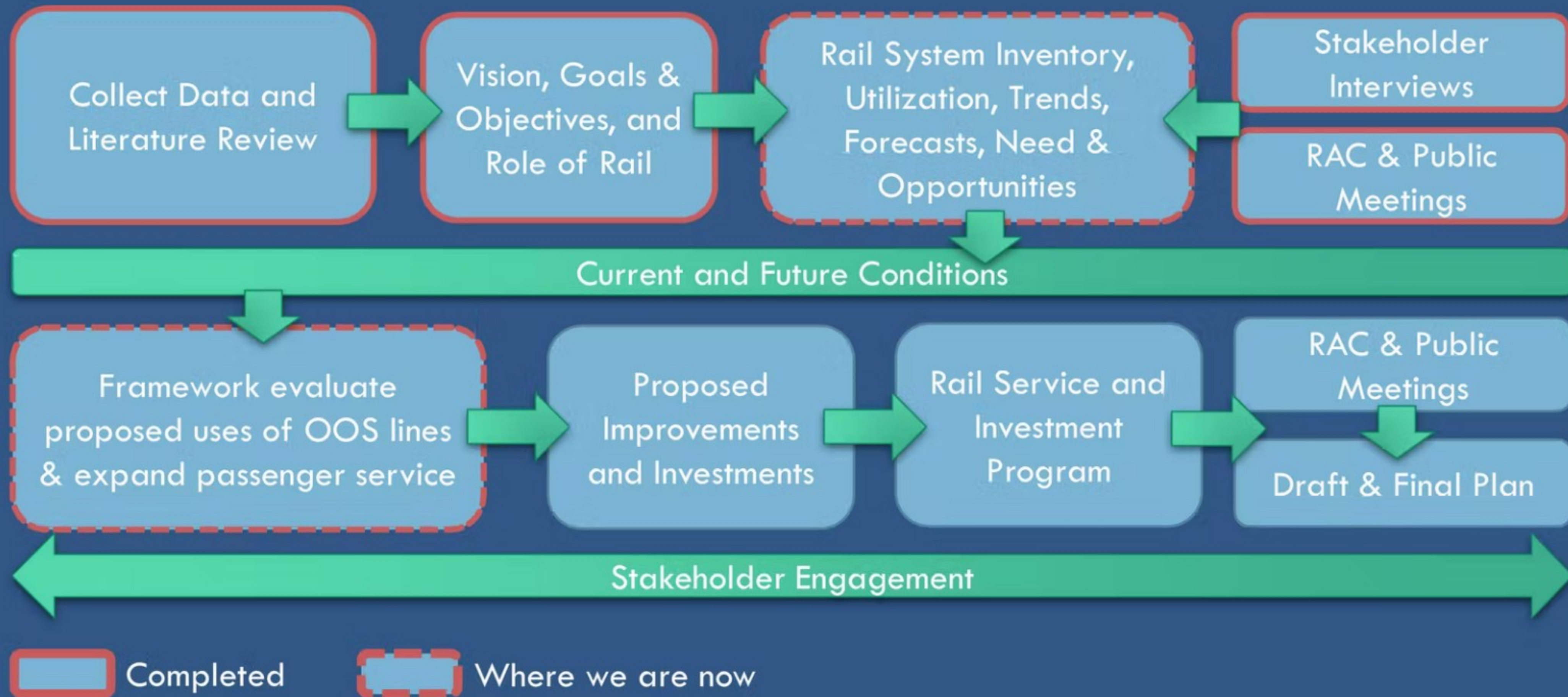
- » By Nathan Howard, MaineDOT
- » Round the room introductions

AGENDA

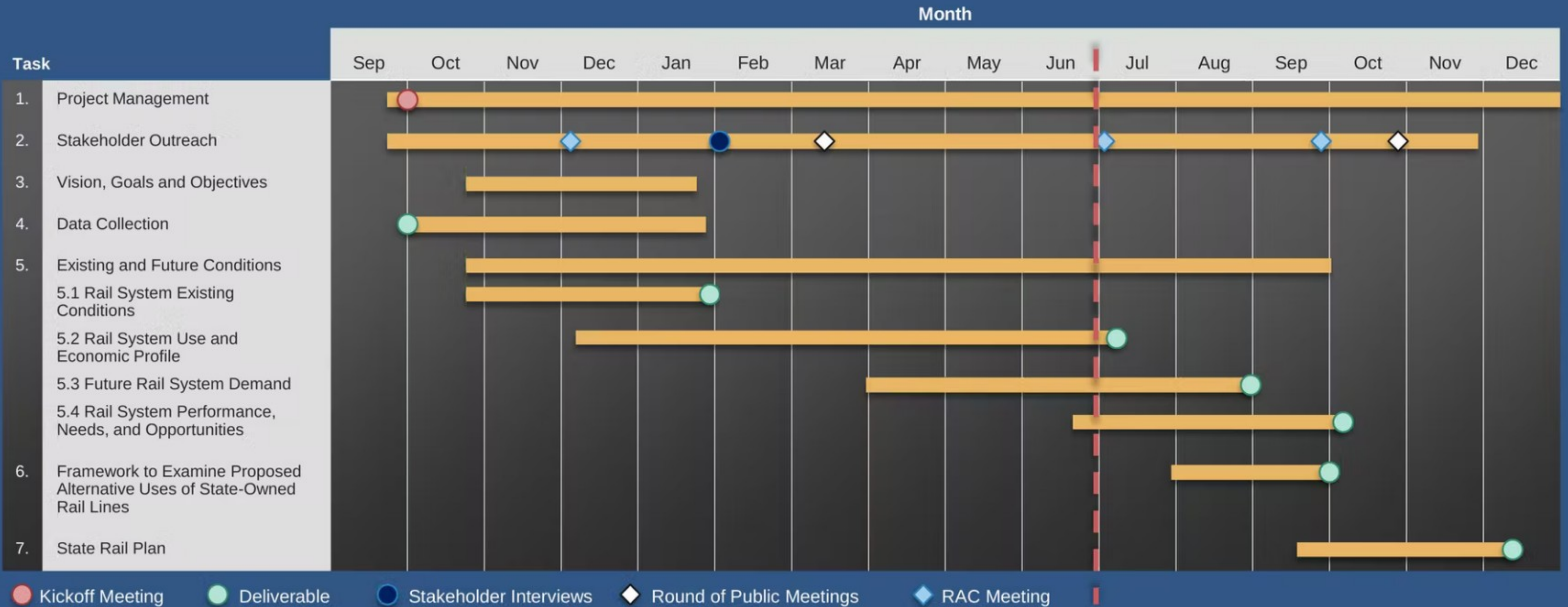
- » Welcome and Introductions
- » Update on State Rail Plan Technical Activities
- » Overview of Existing Conditions of the Rail
- » Stakeholder Outreach Overview and Findings
- » Discussion and Input on Needs and Opportunities
- » Next Steps



UPDATE ON STATE RAIL PLAN TECHNICAL ACTIVITIES



PLAN SCHEDULE



OVERVIEW OF EXISTING CONDITIONS OF THE RAIL SYSTEM

» Rail System Use

- Passenger Rail Profile
- Freight Rail Profile

» Safety

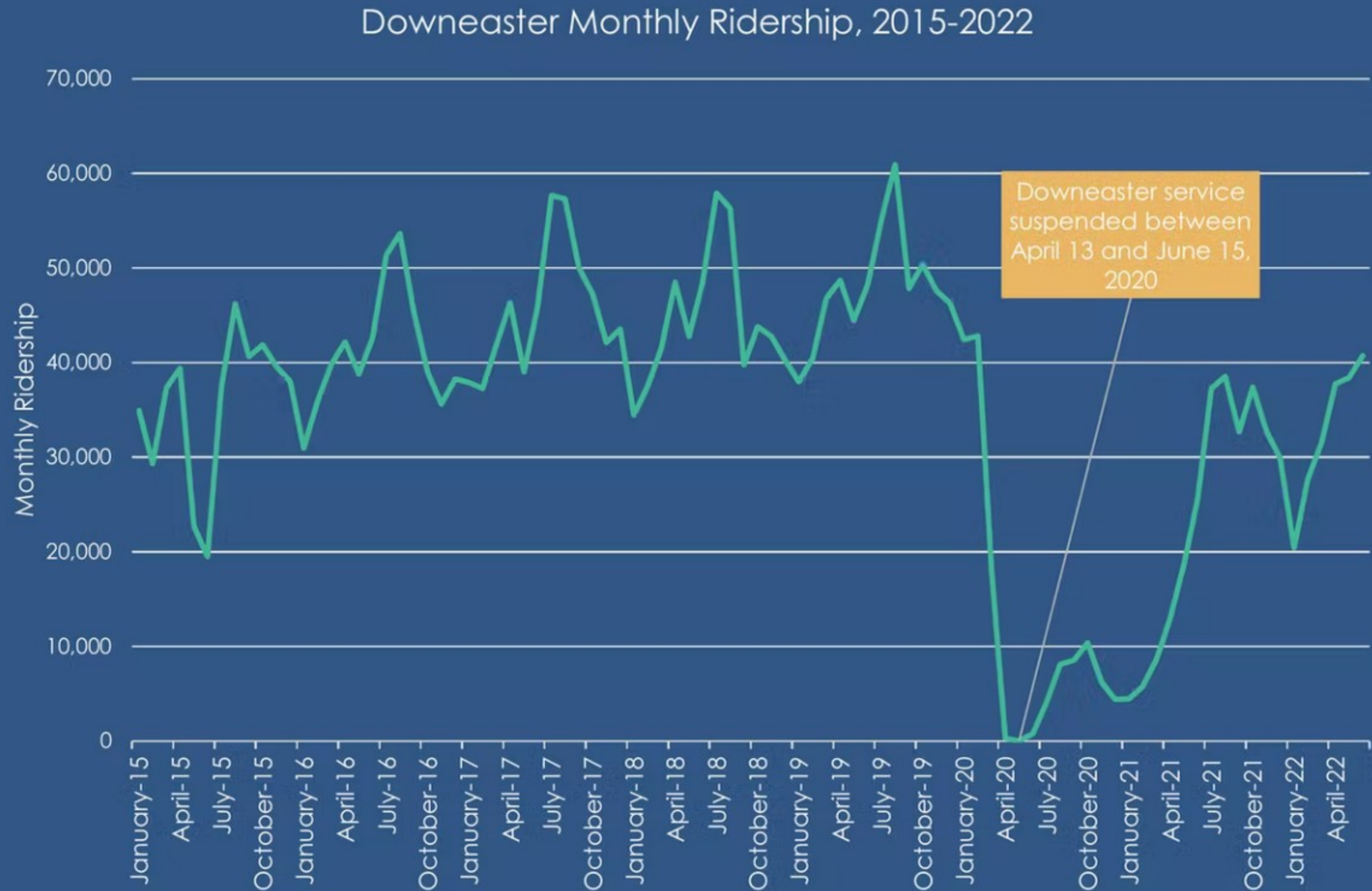
» Economic and Demographic Trends

» Freight Forecast



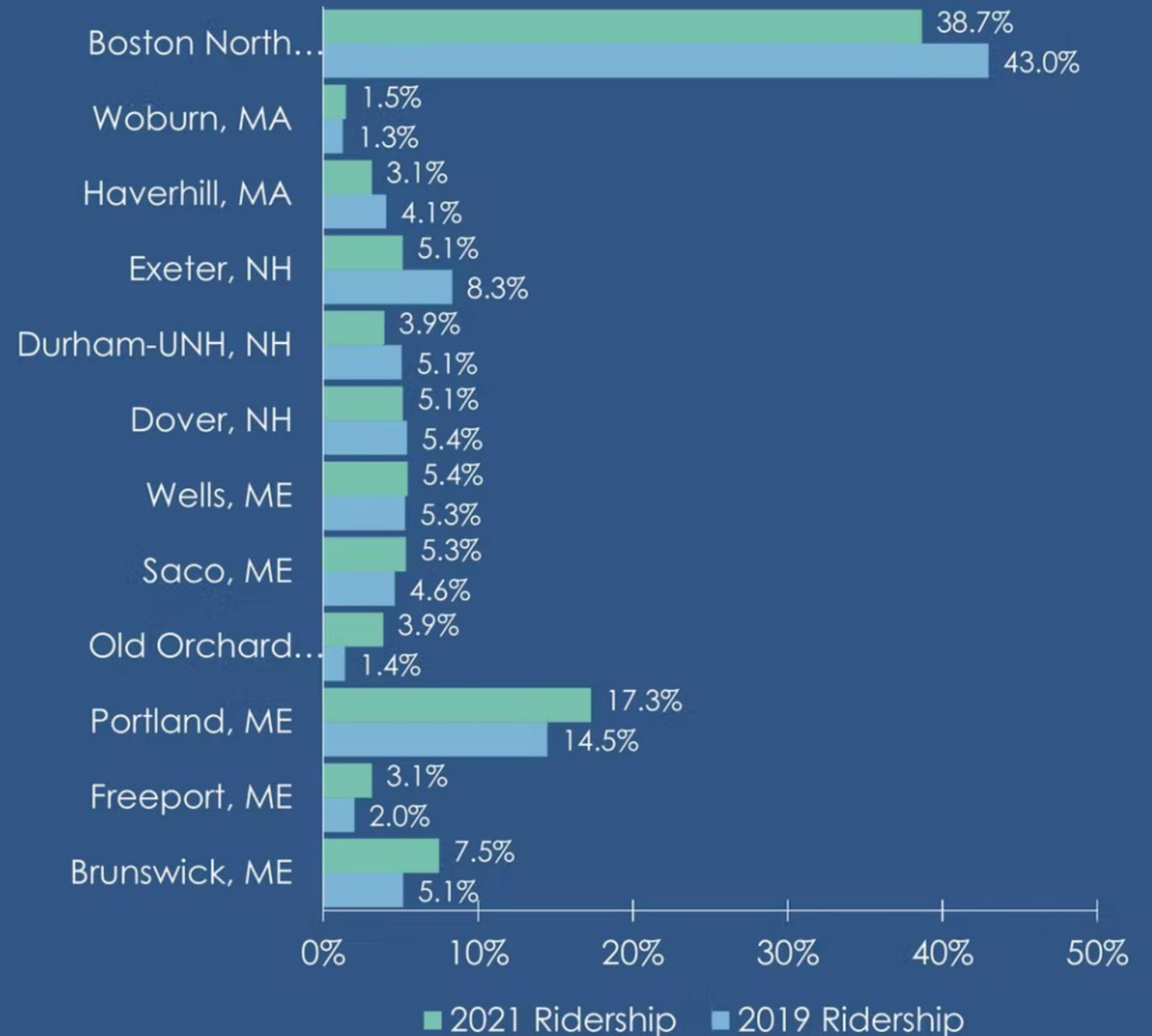
DOWNEASTER RIDERSHIP

- » Between 2015 and 2019, overall **ridership grew by 35%**, reaching nearly 570k annual passengers in 2019
- » Due to the impacts of COVID-19 **ridership dipped sharply in 2020 and 2021**, dipping to 222k passengers in 2021
- » Ridership has continued to **rebound in 2022** reaching 67% of 2019 volume



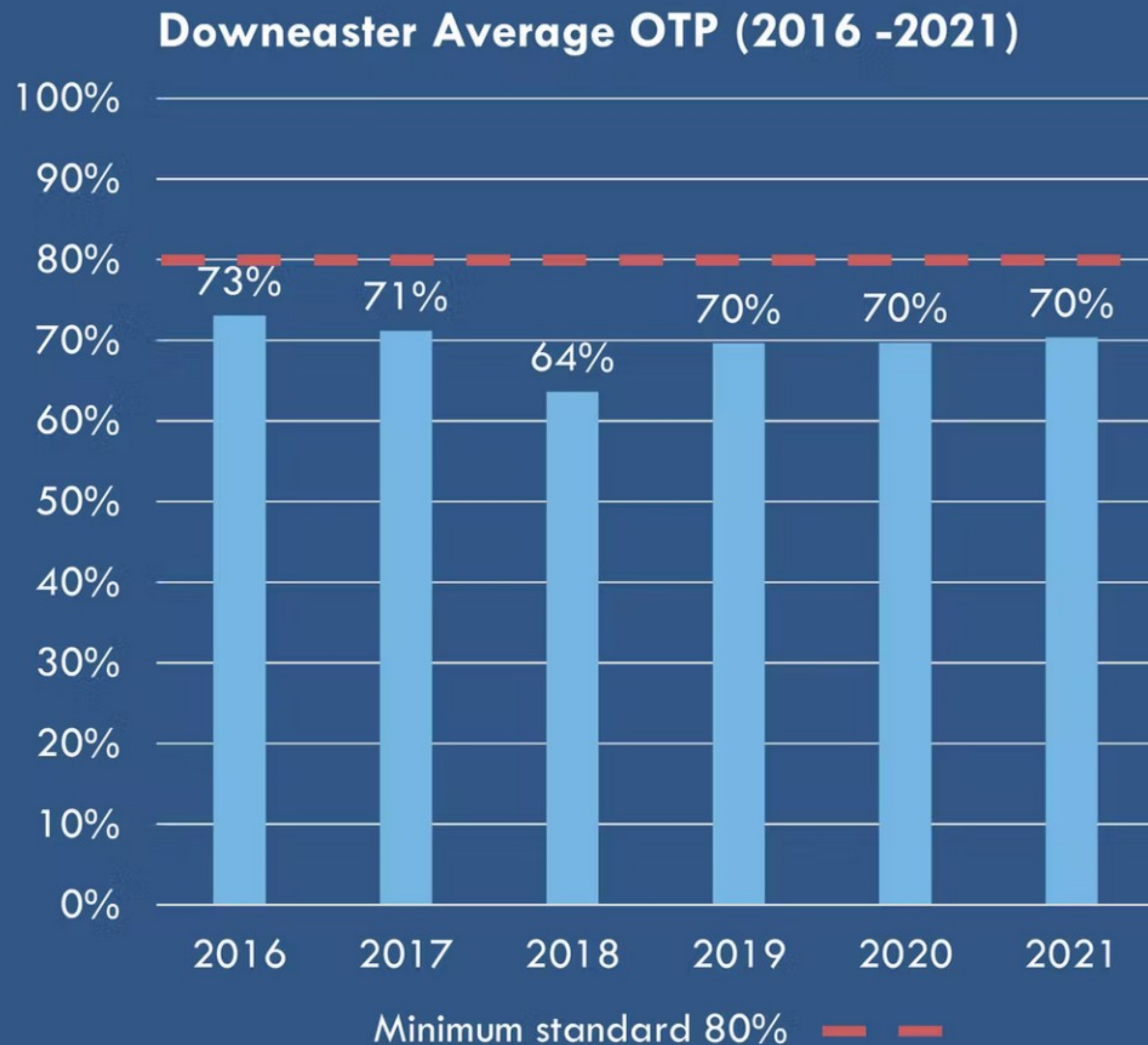
RIDERSHIP ORIGINS AND DESTINATIONS

- » Many riders use **Boston North Station** as their origin or destination station (40% of ridership in 2019)
- » The next highest-used station is **Portland Transportation Center**
- » Post COVID-19, the **proportion of riders** originating or alighting at stations in **Maine increased**



DOWNEASTER ON-TIME PERFORMANCE

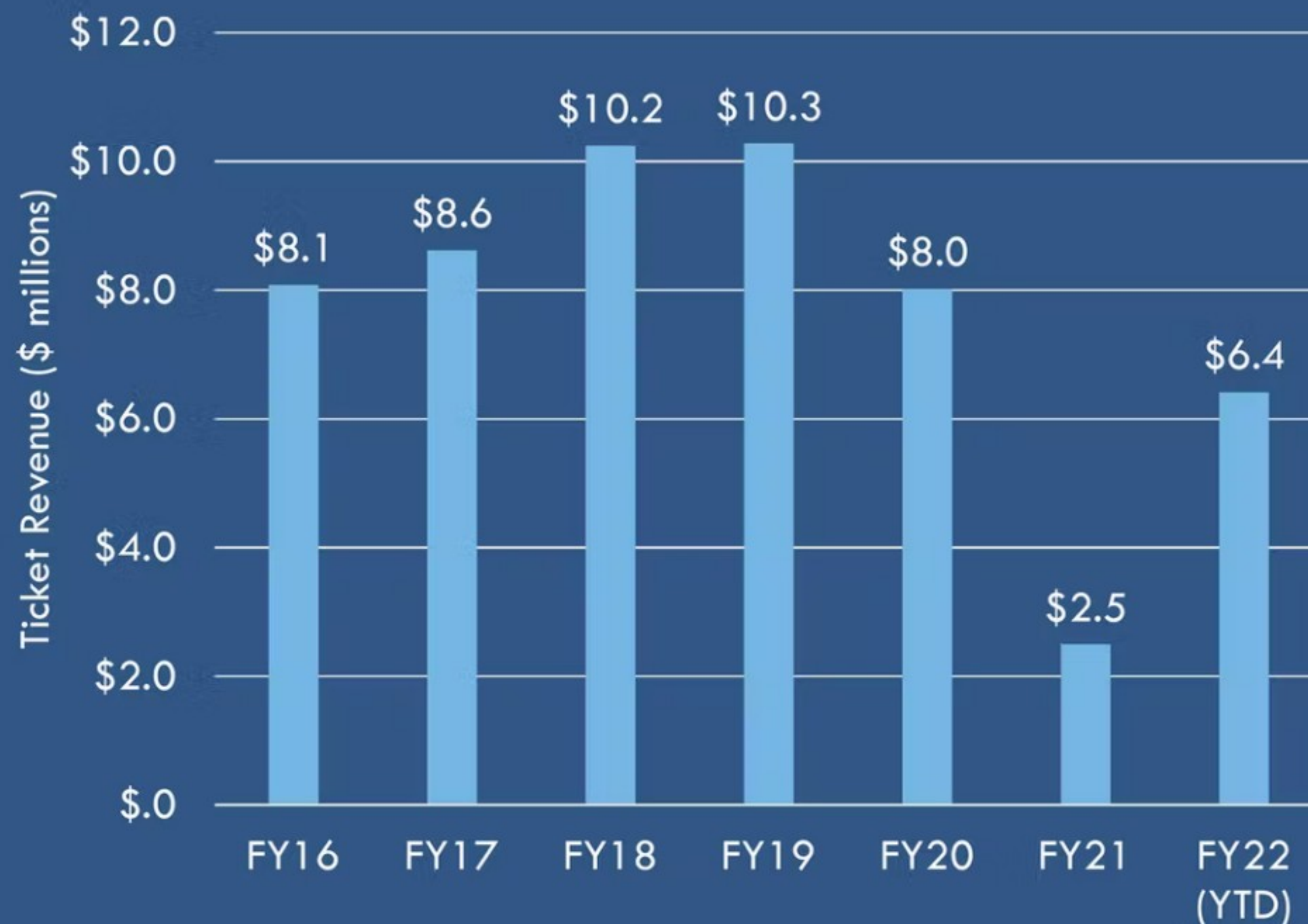
- » **OTP** on the Downeaster has remained around **70%** on an average annual basis between 2016 and 2021
- » Below minimum standard of 80%
- » OTP heavily influenced by freight train delays and timely completion of maintenance issues



DOWNEASTER FINANCIAL PERFORMANCE

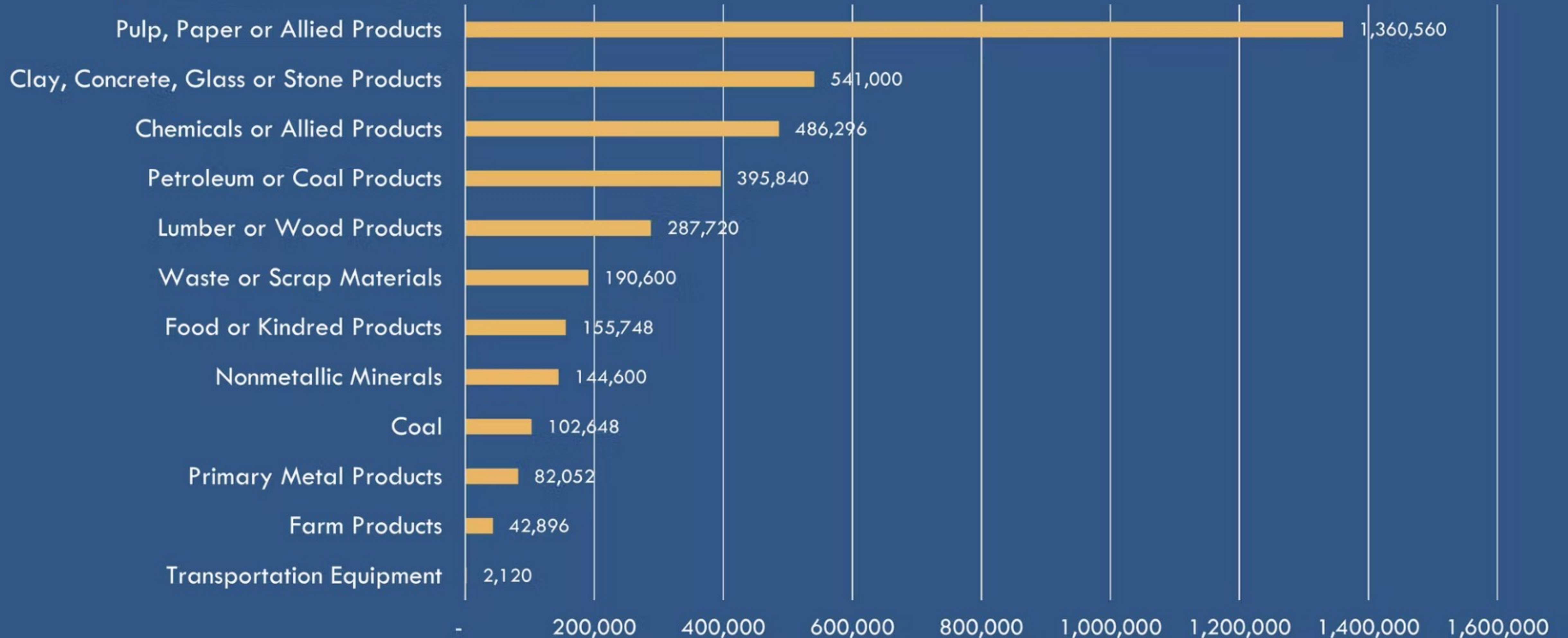
- » Between FY16 and FY19, the Downeaster brought in an increasing amount of ticket revenue, reaching nearly \$10.3 million in FY2019 (20% increase)
- » Due to the impacts of the COVID-19 pandemic, revenues dropped in FY20 and FY21, falling to only \$2.5 million in annual operating revenue in FY21
- » Through April, FY22 revenues had recovered to \$6.4 million

Downeaster Ticket Revenue, FY16 – FY 22



RAIL TONNAGE BY INDUSTRY, 2019

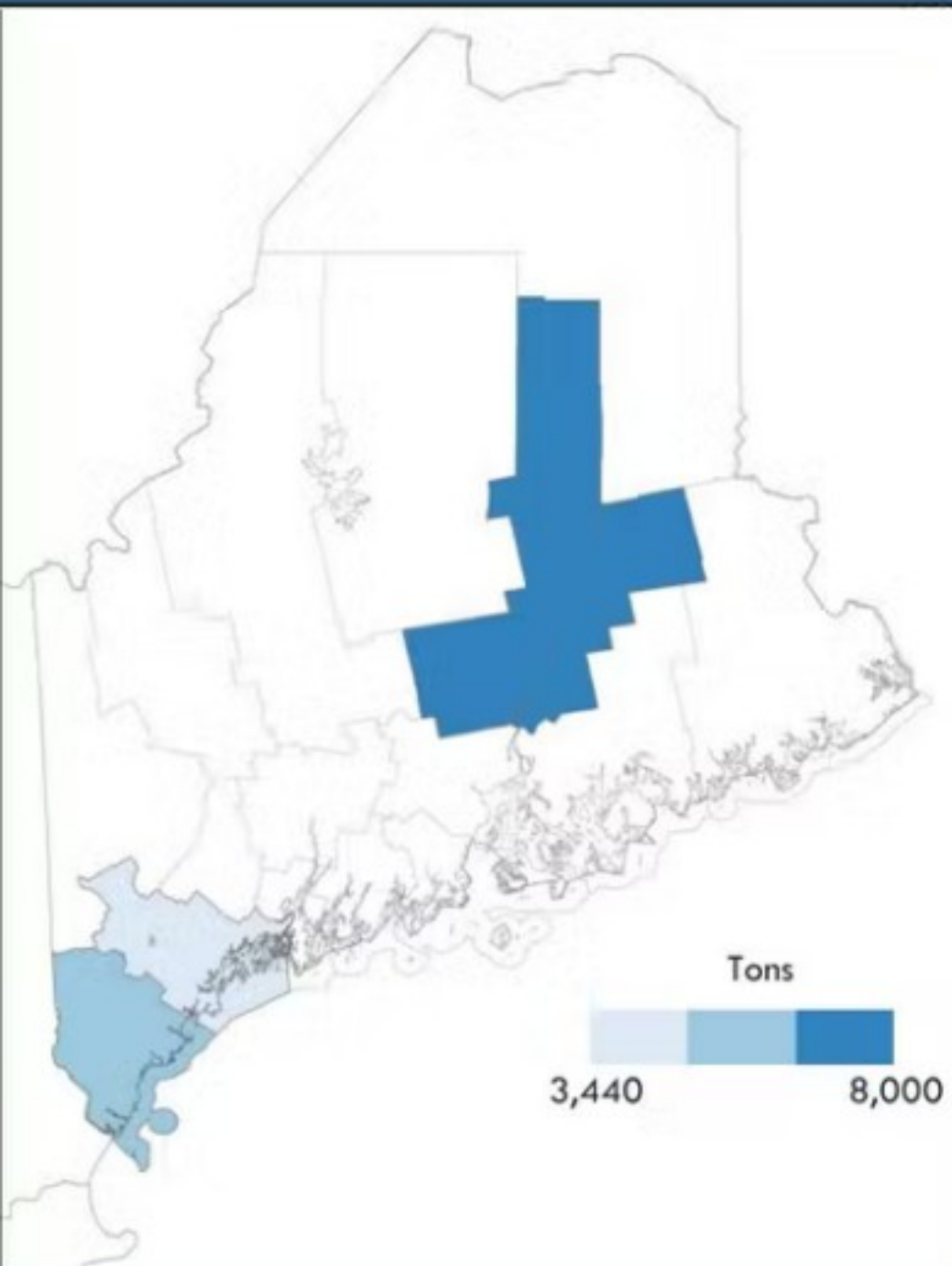
(EXCL. THROUGH)



Source: STB Confidential Carload Waybill Sample data, 2019

COMMODITY ORIGIN BY INDUSTRY, 2019

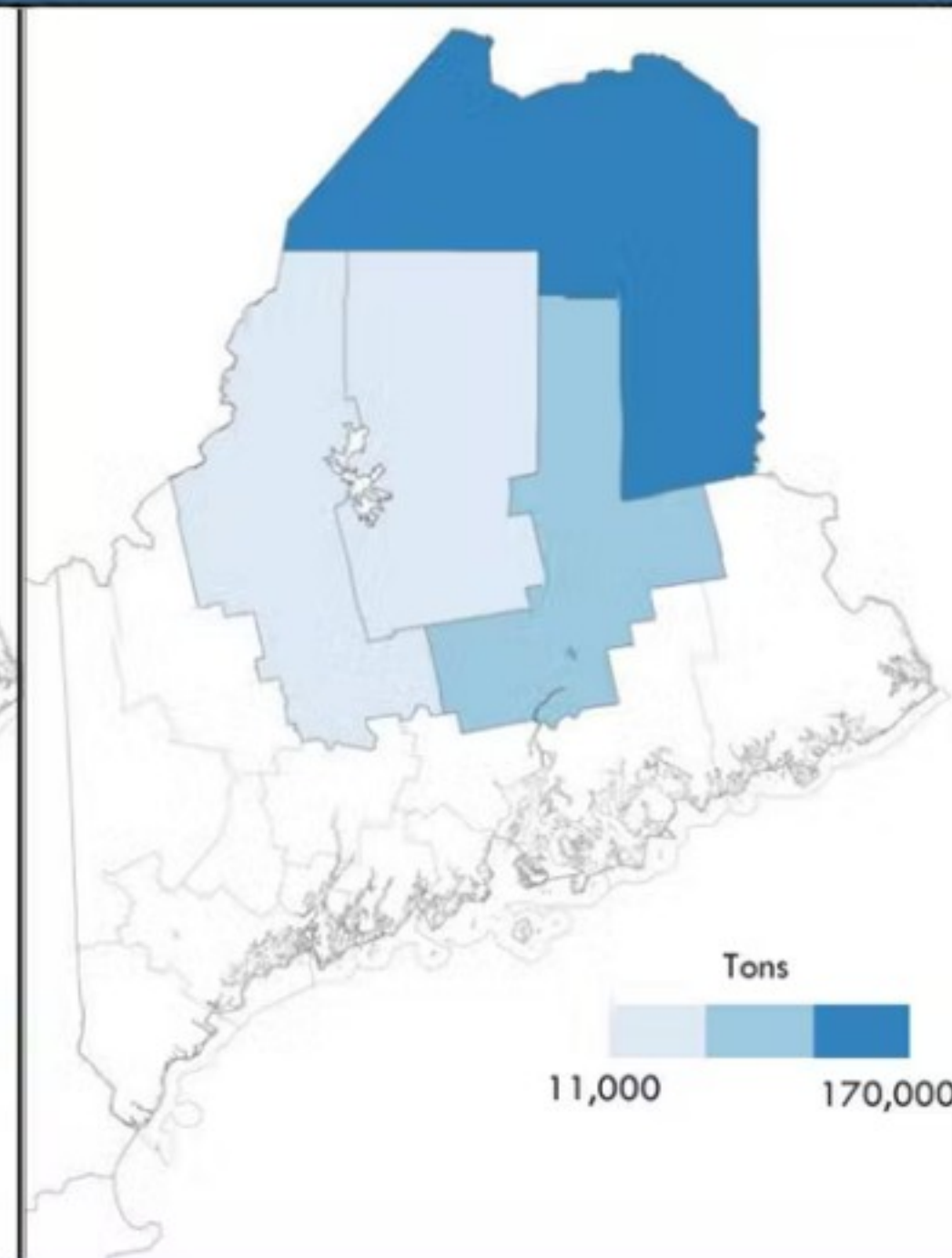
Chemical



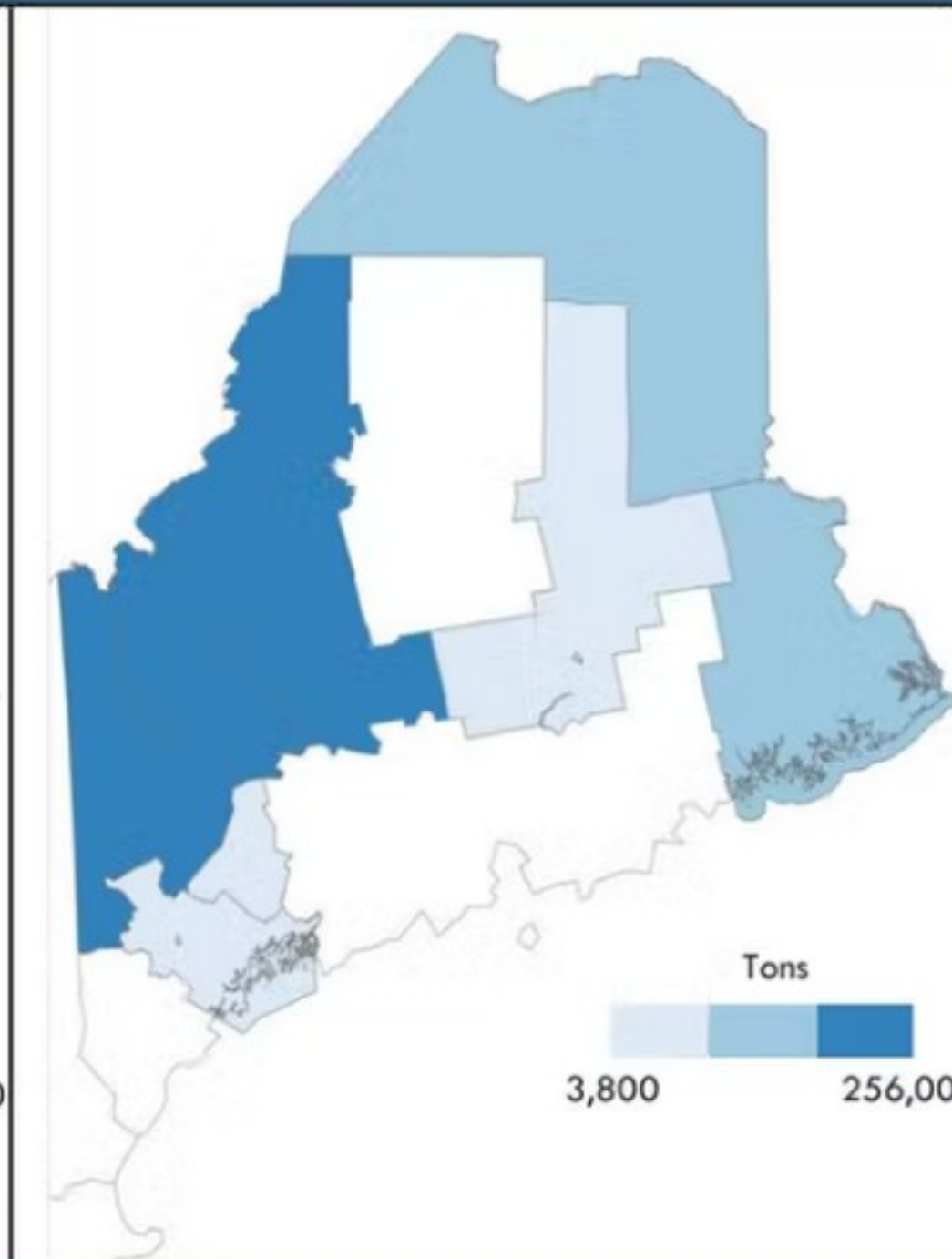
Agricultural



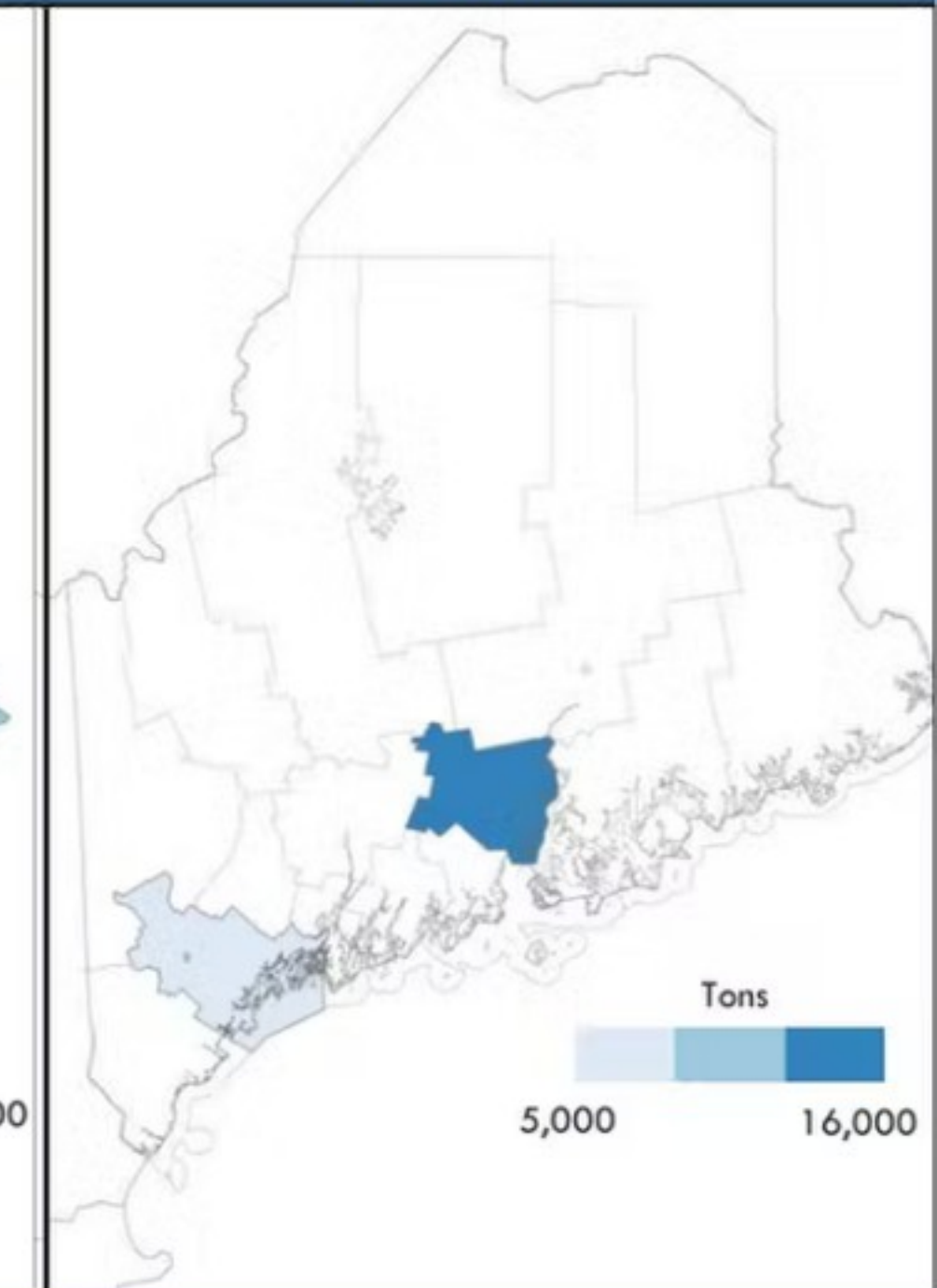
Forest Prod.



Pulp & Paper



Petroleum
Prod.



DIVERSITY OF RAIL USERS

- » Demand for rail service is considered increasingly healthy when:
 - the number of rail users increases and
 - when the shipment volumes are balanced amongst the rail users
- » Diversity Calculation Steps:
 1. Identify the rail users
 2. Calculate market share per rail user
 3. Calculate diversity index and the reciprocal index
- » The number of overall rail users matters — more users and even traffic volumes make for less risk exposure

Highly Competitive
(100+ equal-volume rail users)



Unconcentrated
(7-99 equal-volume rail users)



Moderate Concentration
(4-6 equal-volume rail users)

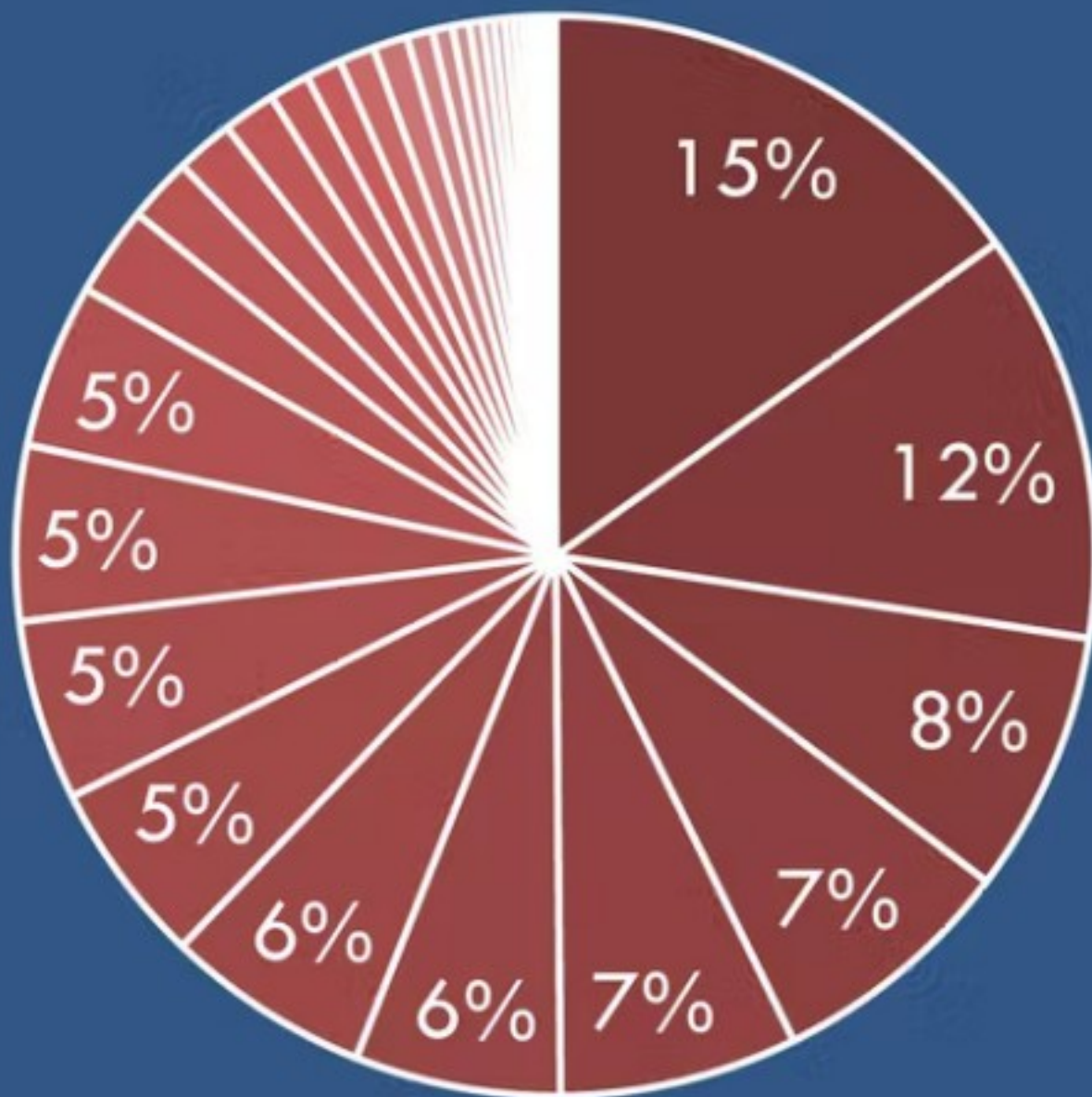


High Concentration
(1-3 equal-volume rail users)



EXAMPLE, INTRASTATE-RECEIVERS, MARKET SHARE

2005

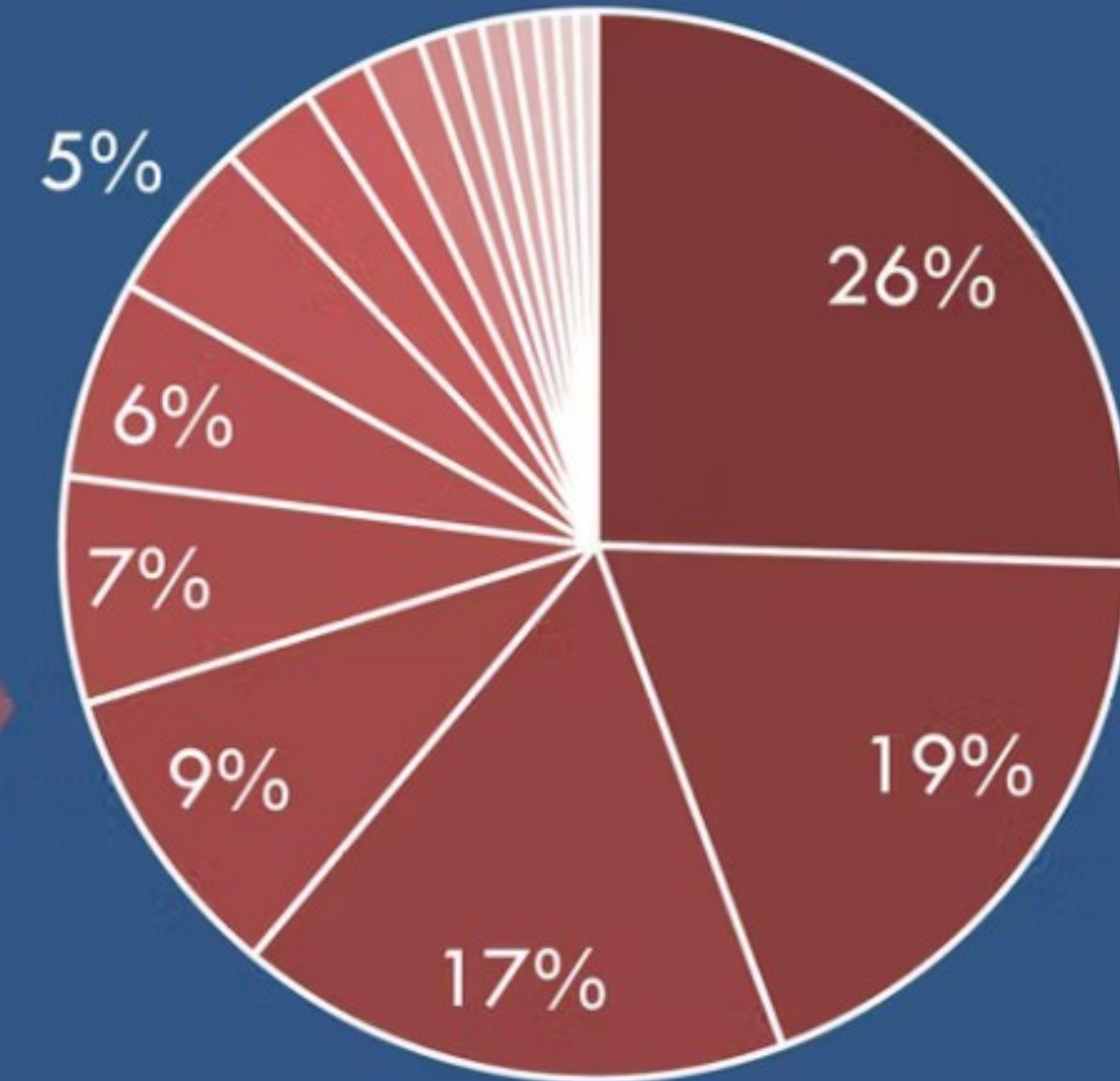


$D = 0.08$, **Unconcentrated** ✓
 $1/D = 13$ equivalent-share rail users

Market of Maine rail users receiving rail shipments from other Maine rail users became more concentrated between 2005 and 2019:

- Volumes between rail users became less balanced, and
- Less rail users

2019



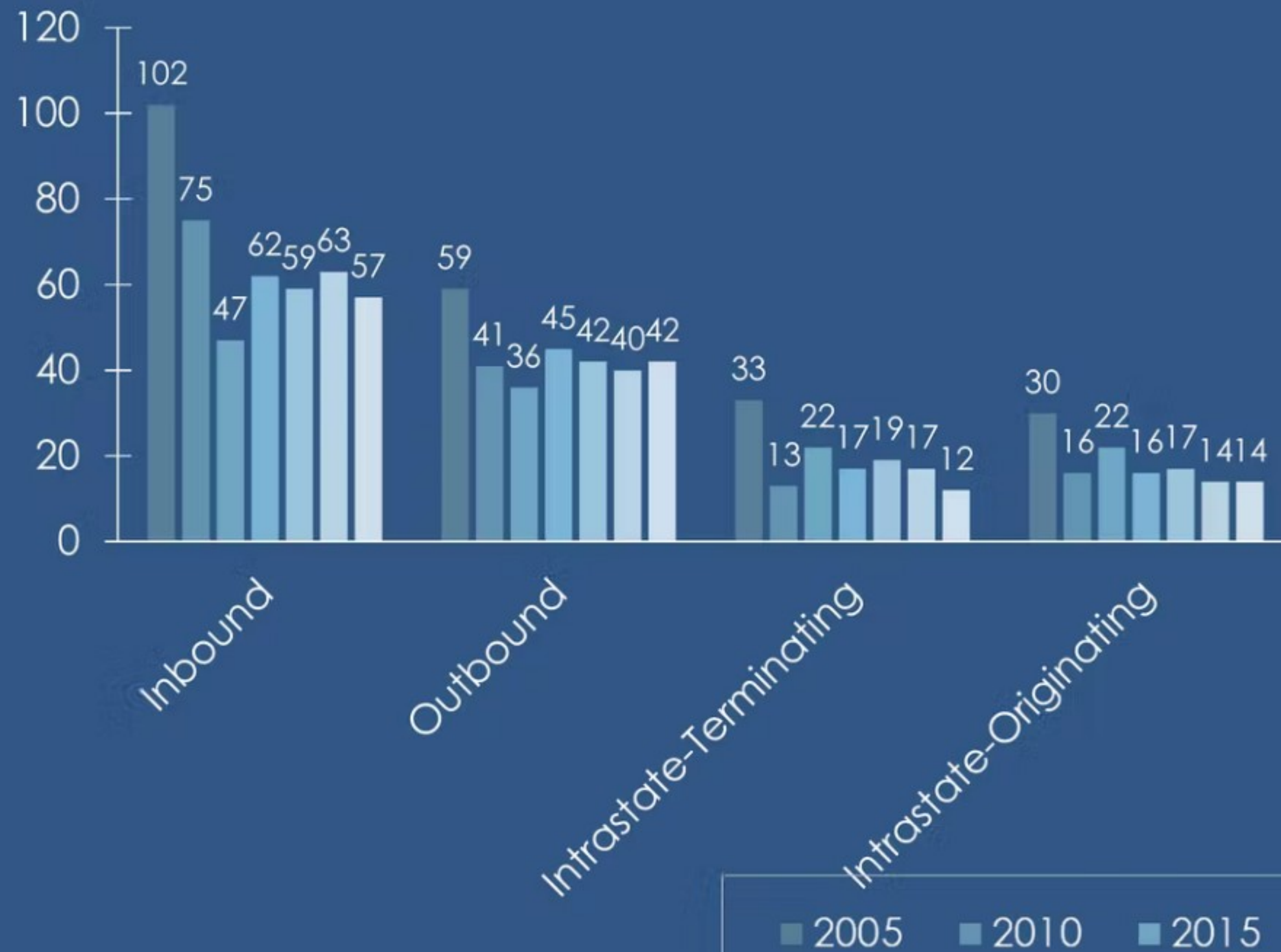
$D = 0.18$, **Moderately Concentrated**
 $1/D = 6$ equivalent-share rail users



Equivalent Equal-Volume rail users

RAIL USERS & EQUAL-VOLUME RAIL USERS

Estimated Number of Rail Users



Equivalent Number of Equal-Volume Rail Users
(Reciprocal Diversity Index)

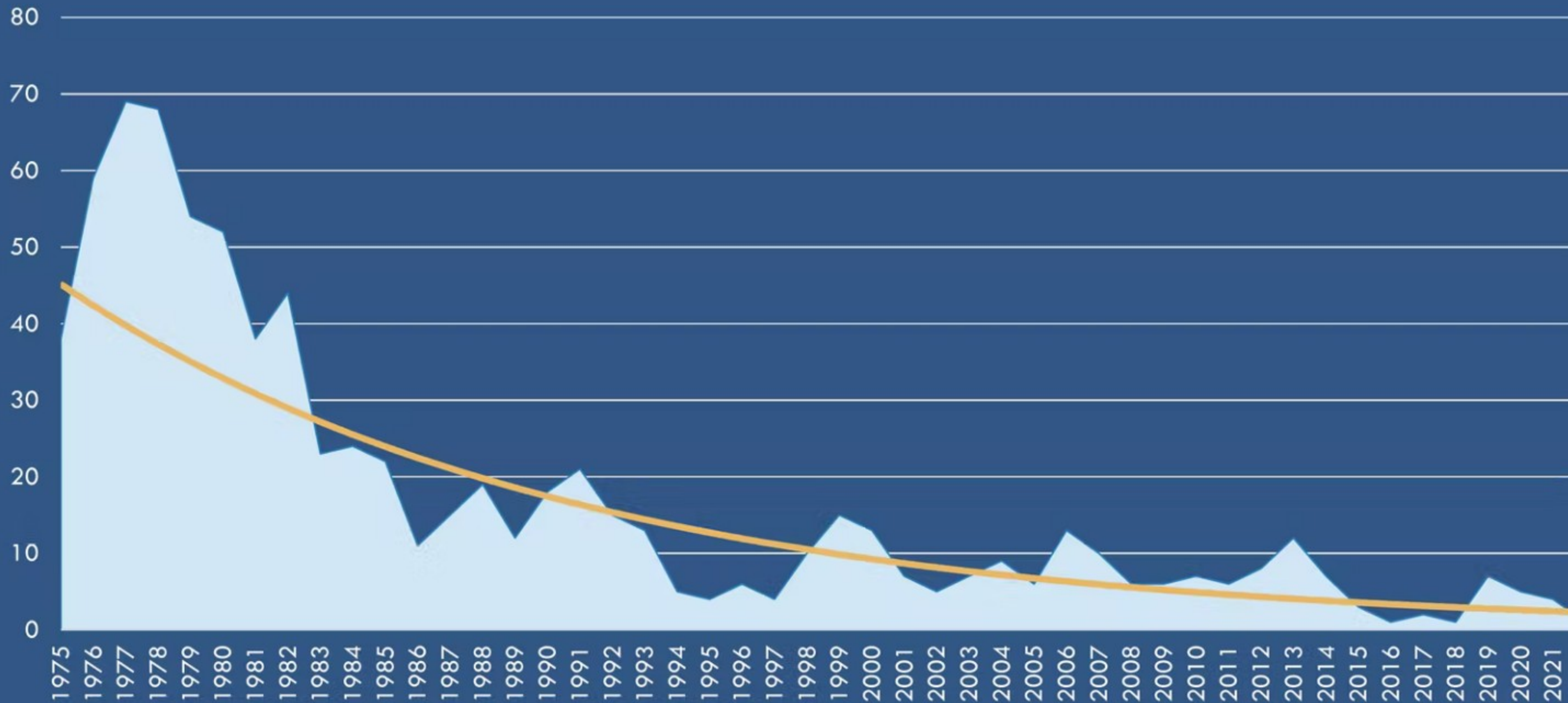


DIVERSITY OF RAIL USERS IN MAINE

- » **Rail users** and the **balance of shipments** between rail users **declined** the most between **2005 and 2010** in all directions and has been rather **stable** between **2015 and 2020**.
- » The number and diversity of rail users is greatest for businesses in Maine receiving **inbound** rail shipments.
- » **Outbound** rail diversity suffered greatly in 2010 but the number of rail shippers did not decline as dramatically as diversity. This indicates that in 2010 a small number of companies were shipping most of the outbound traffic.
- » **Intrastate** is a small share of the rail volume. The Maine companies shipping products by rail are more balanced than companies receiving products by rail.

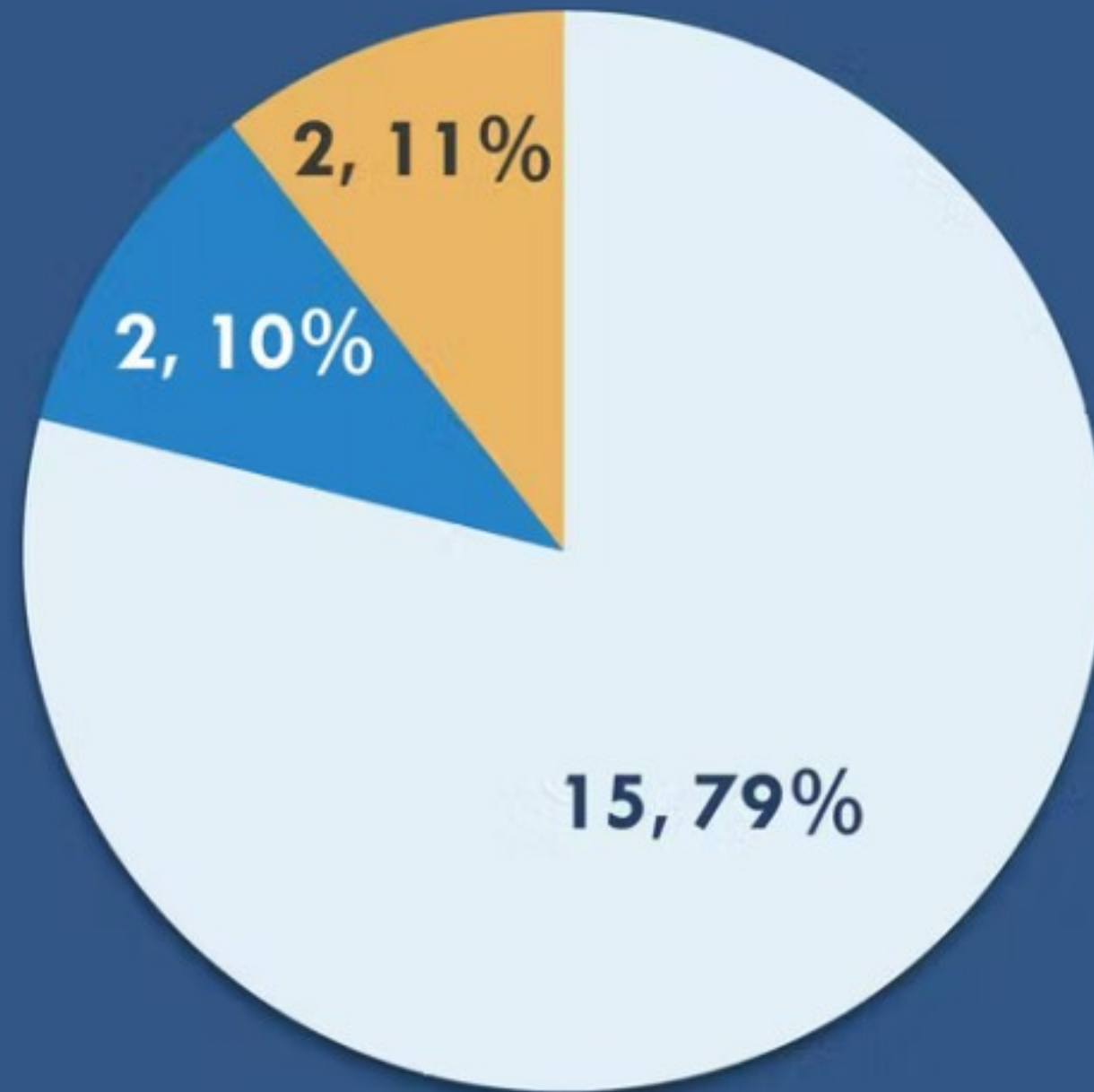
RAIL SAFETY TRENDS

MAINE TRAIN ACCIDENTS/INCIDENTS 1975-2021 (EXCLUDING GRADE CROSSINGS)



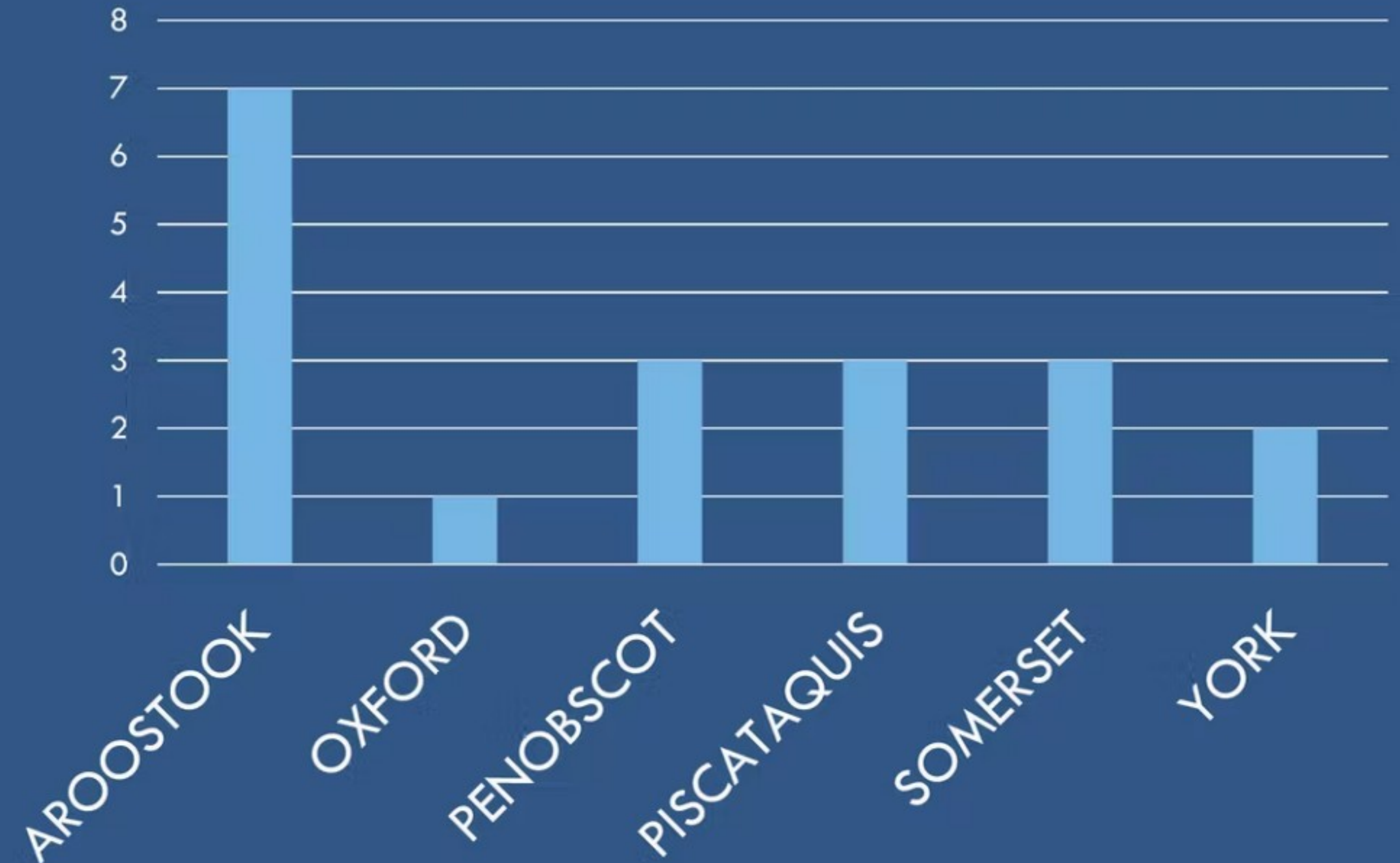
RAIL SAFETY TRENDS

ACCIDENT/INCIDENT TYPE
2017-2021



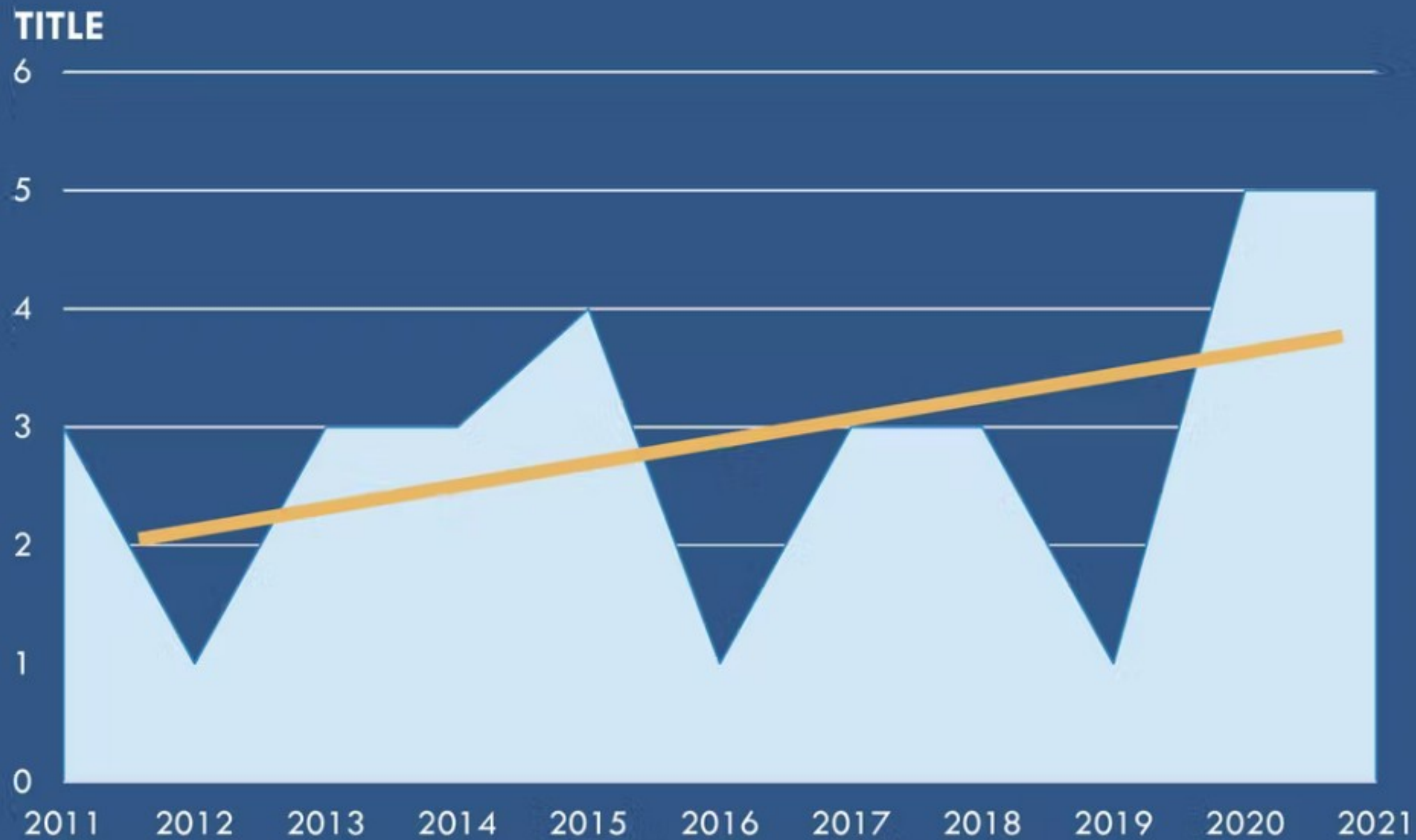
■ Derailment ■ Obstruction ■ Other impacts

RAIL EQUIPMENT ACCIDENT/INCIDENTS
2017-2021

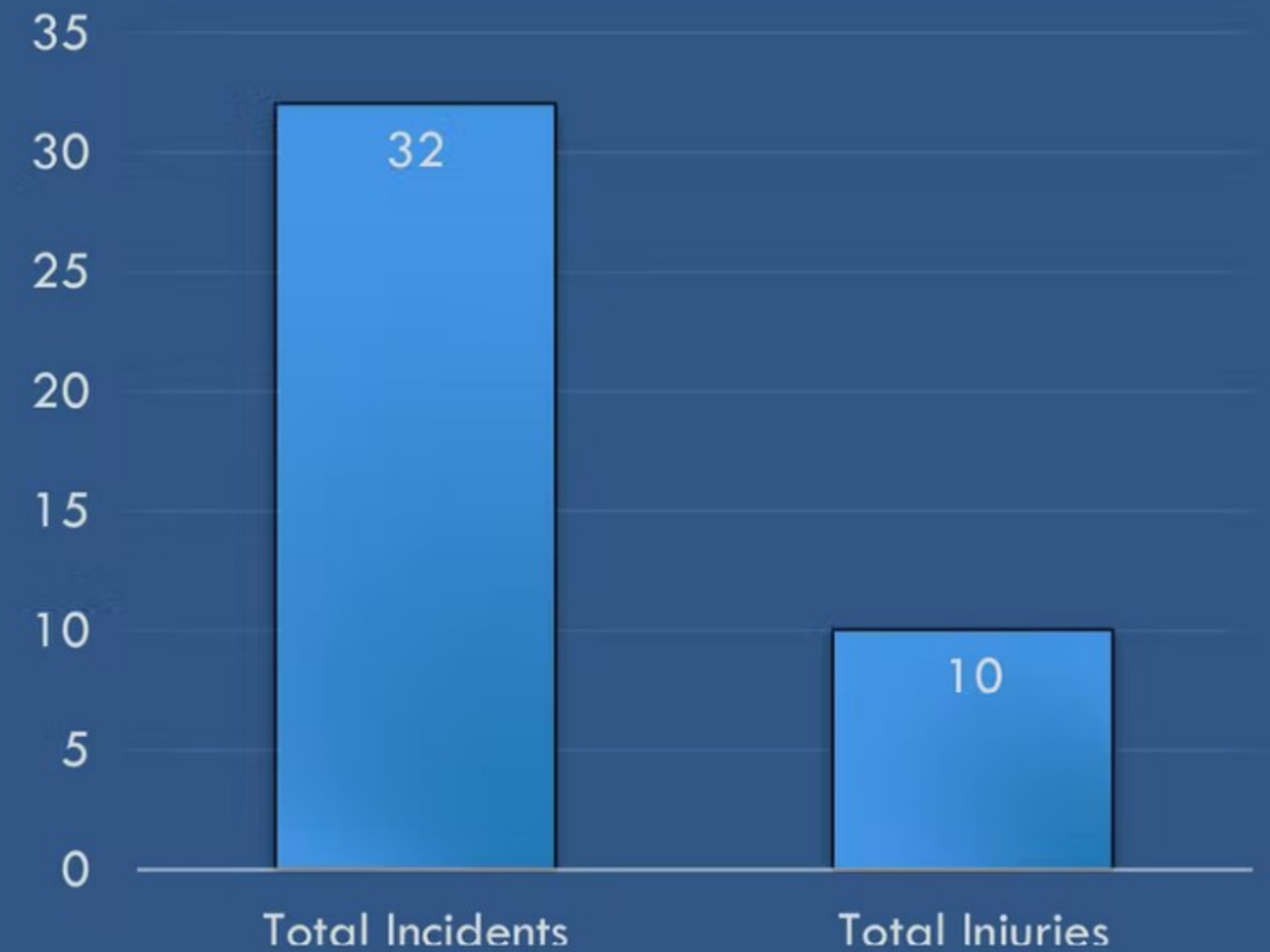


RAIL SAFETY TRENDS

Rail Grade Crossing Incidents (Involving Trains) 2011-2020

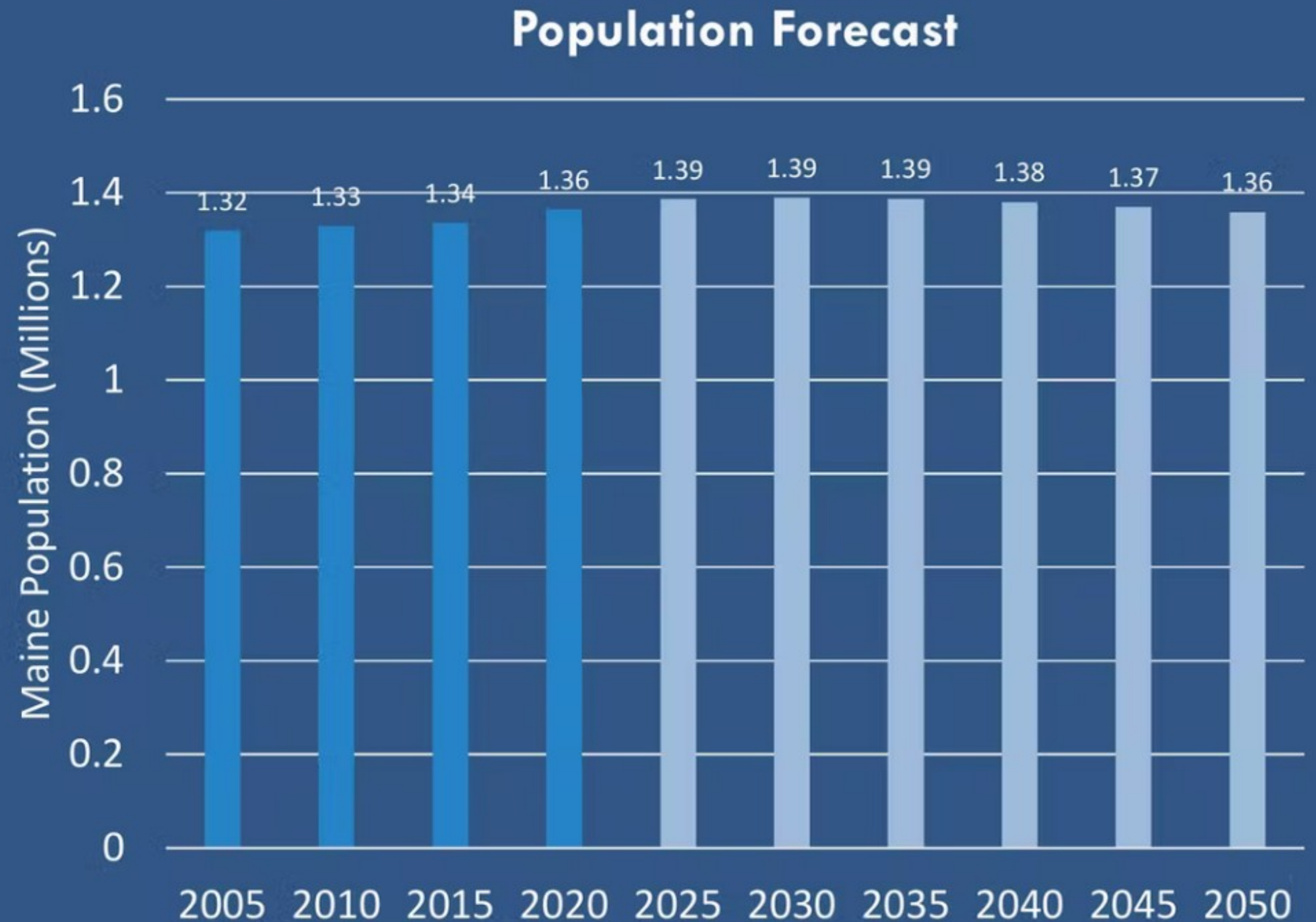


At-Grade Crossing Injury/Incident Summary 2011-2021



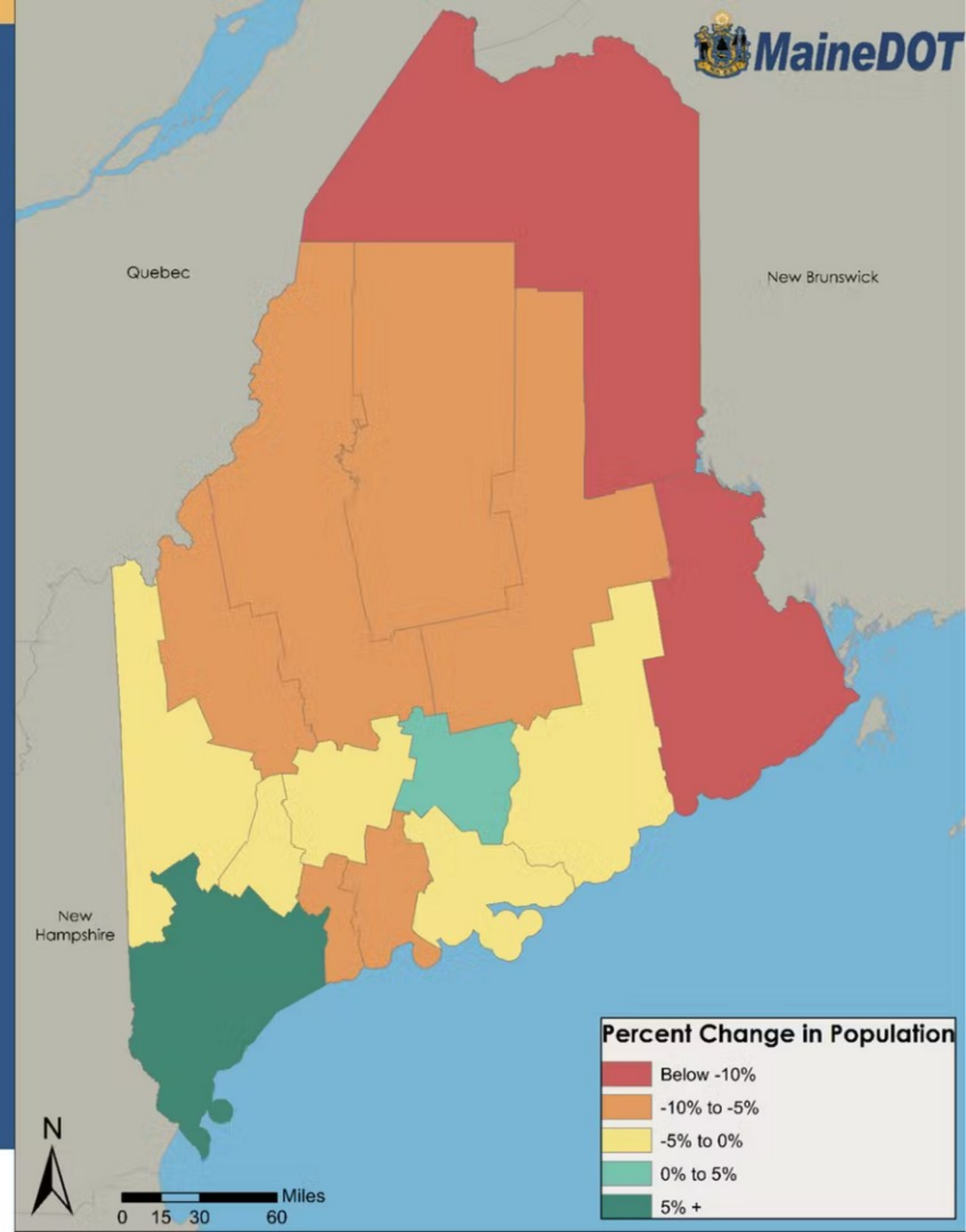
DEMOGRAPHIC AND ECONOMIC TRENDS THROUGH 2050

- » Population projected to hover around **1.36 million** through 2050.
- » Aging population:
 - Since 2010 the age bracket to experience significant growth was that of 65 and over
 - 2050 forecast continues this trend



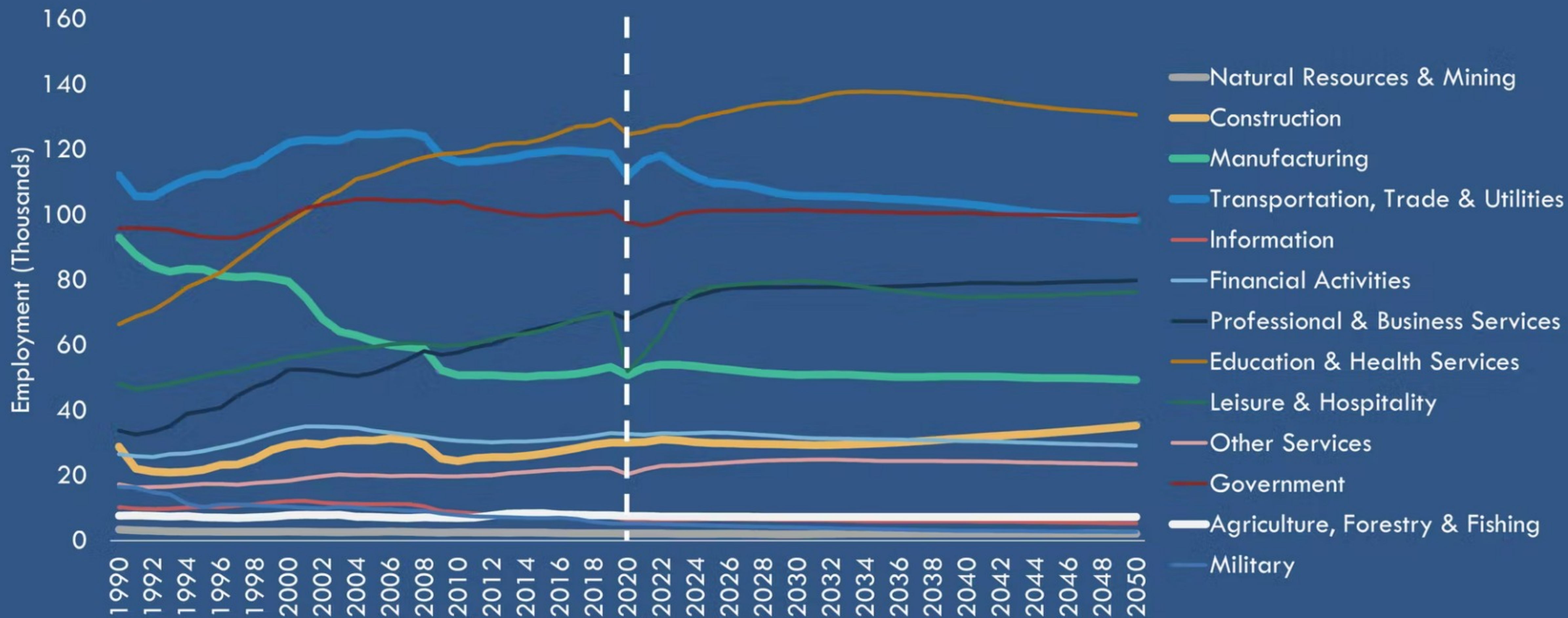
PROJECTED COUNTY POPULATION CHANGE 2019-2050

- » Sluggish growth and declines in population are not expected to be uniformly distributed across the state
- » Large portions of Maine are expected to experience population declines, with growth concentrated in the more urbanized southern portion of the state



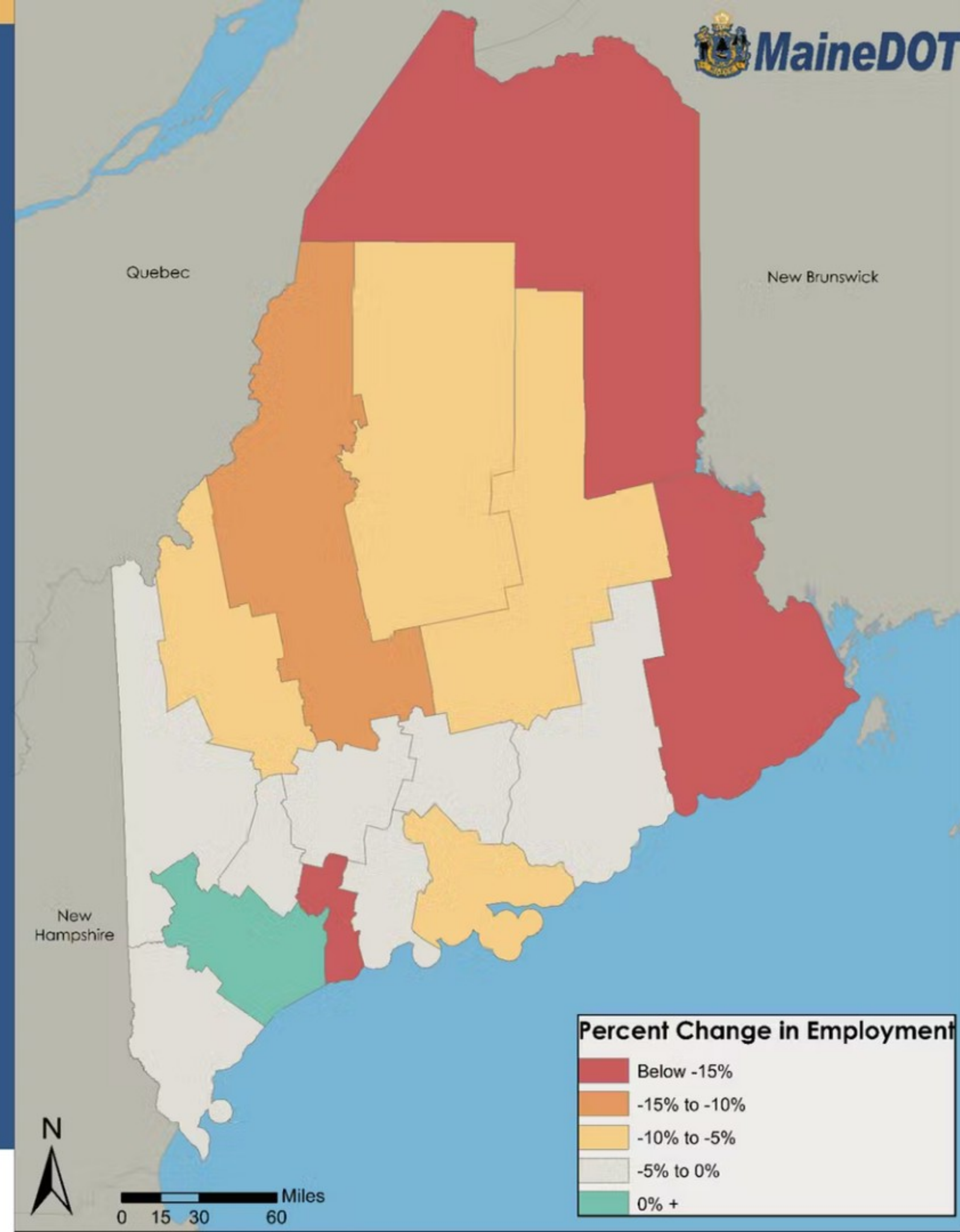
Source: S&P Global Macroeconomic Forecast through 2050

EMPLOYMENT TRENDS THROUGH 2050

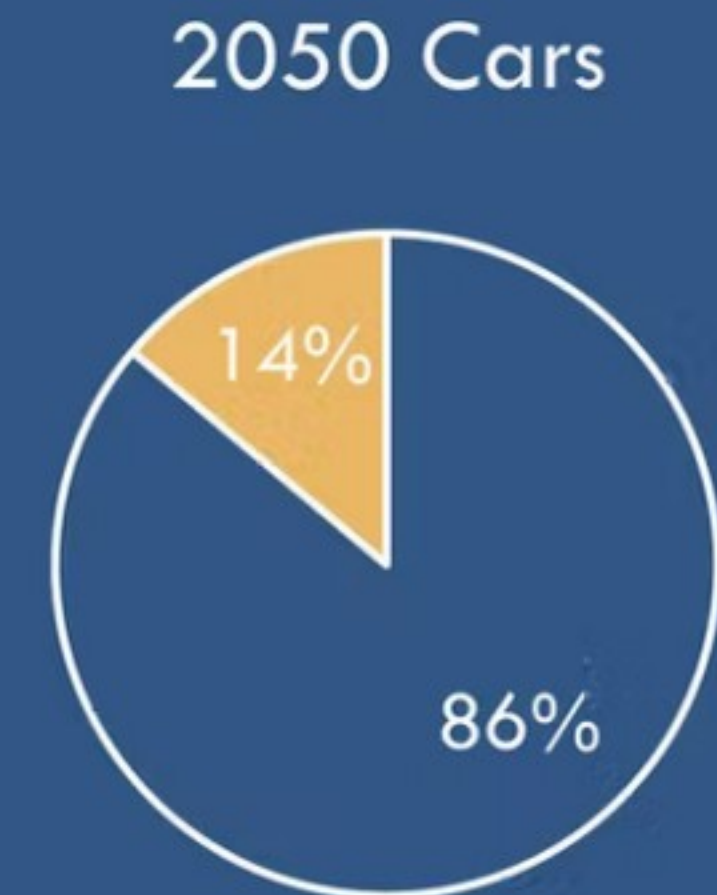
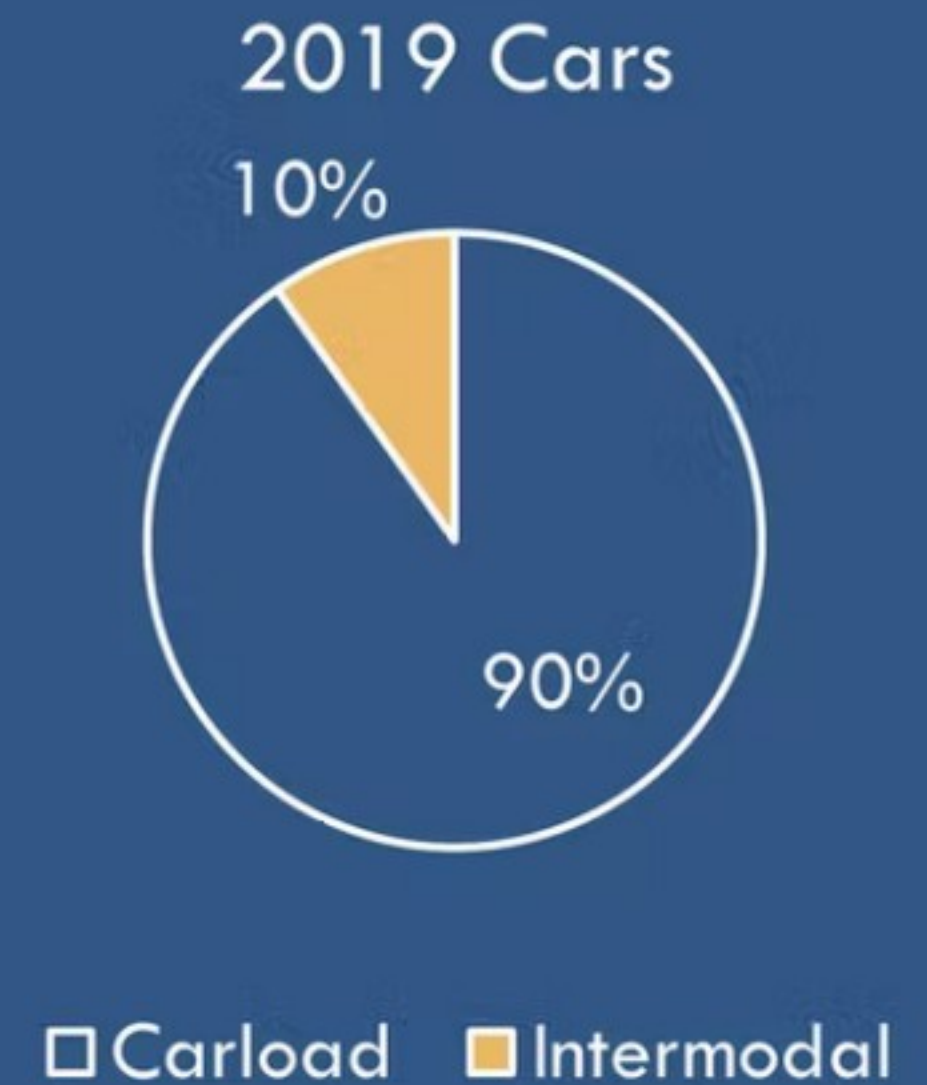


PROJECTED COUNTY EMPLOYMENT CHANGE 2019-2050

- » Since 1990, total nonfarm employment rose steadily. To a high of 637,000 in 2019, before falling slightly in 2020 as result of the pandemic to 612,000
- » Through 2050, total nonfarm employment is expected to decrease across all but one county in Maine - Cumberland County (Portland), projected to increase by 9%

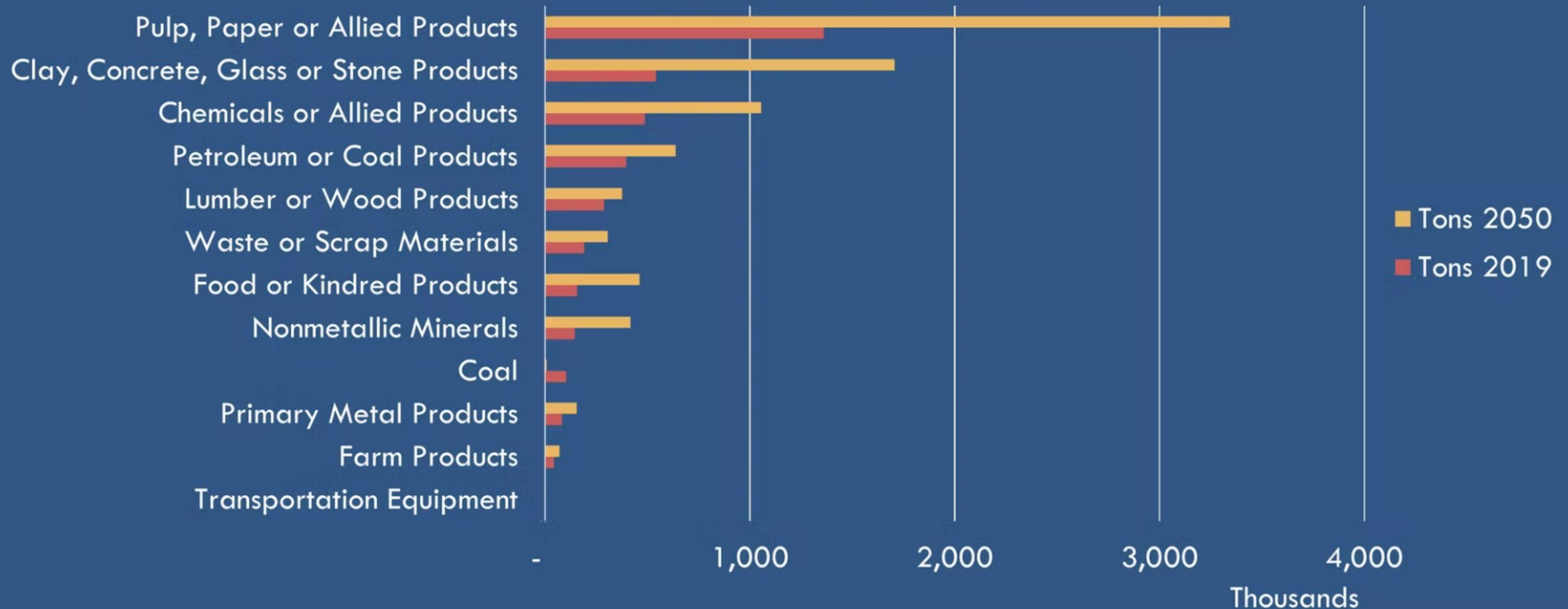


FREIGHT RAIL FORECAST: PRELIMINARY RESULTS



COMMODITIES TRENDS THROUGH 2050: *PRELIMINARY RESULTS*

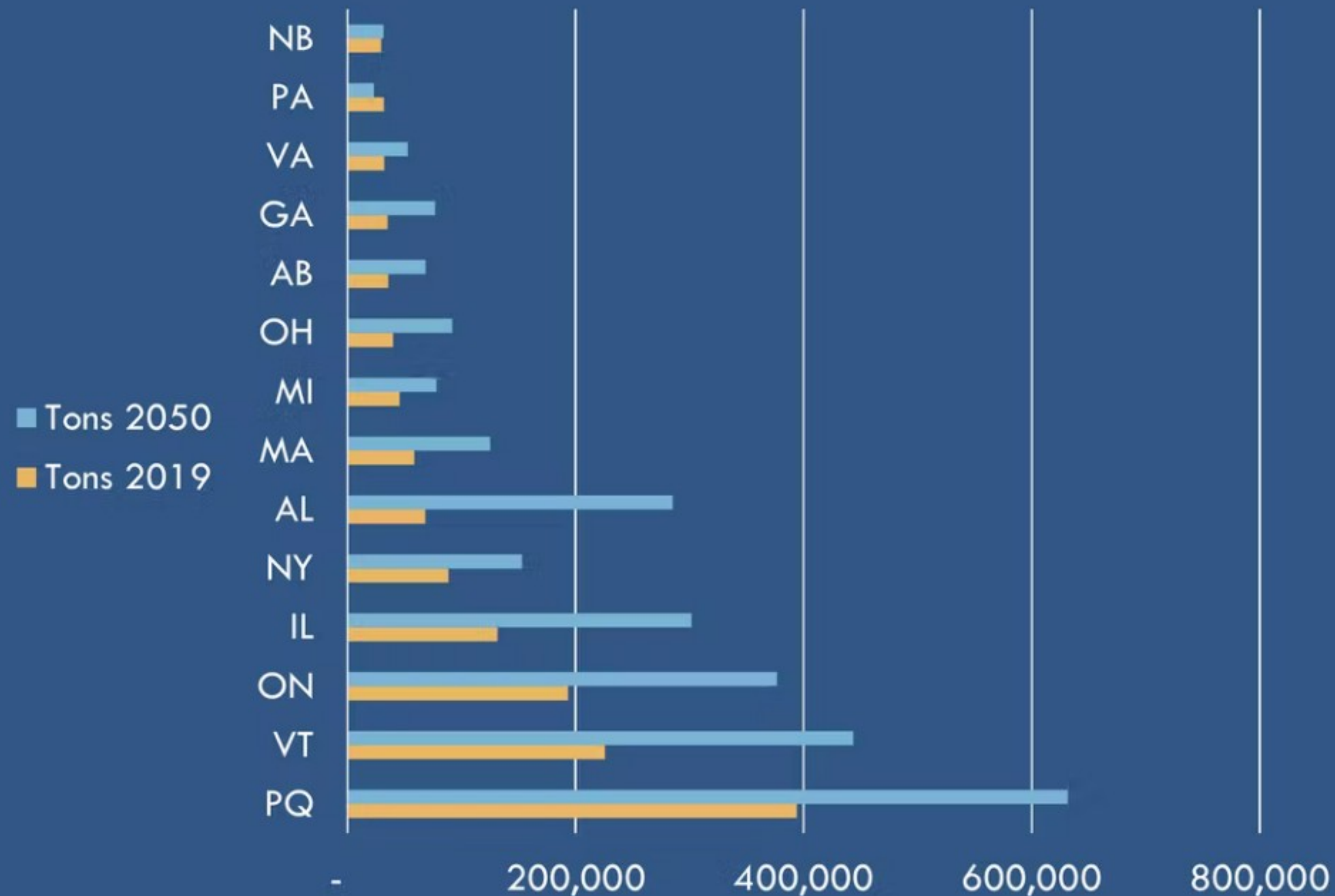
Rail Tonnage (excl. through) 2019-2050



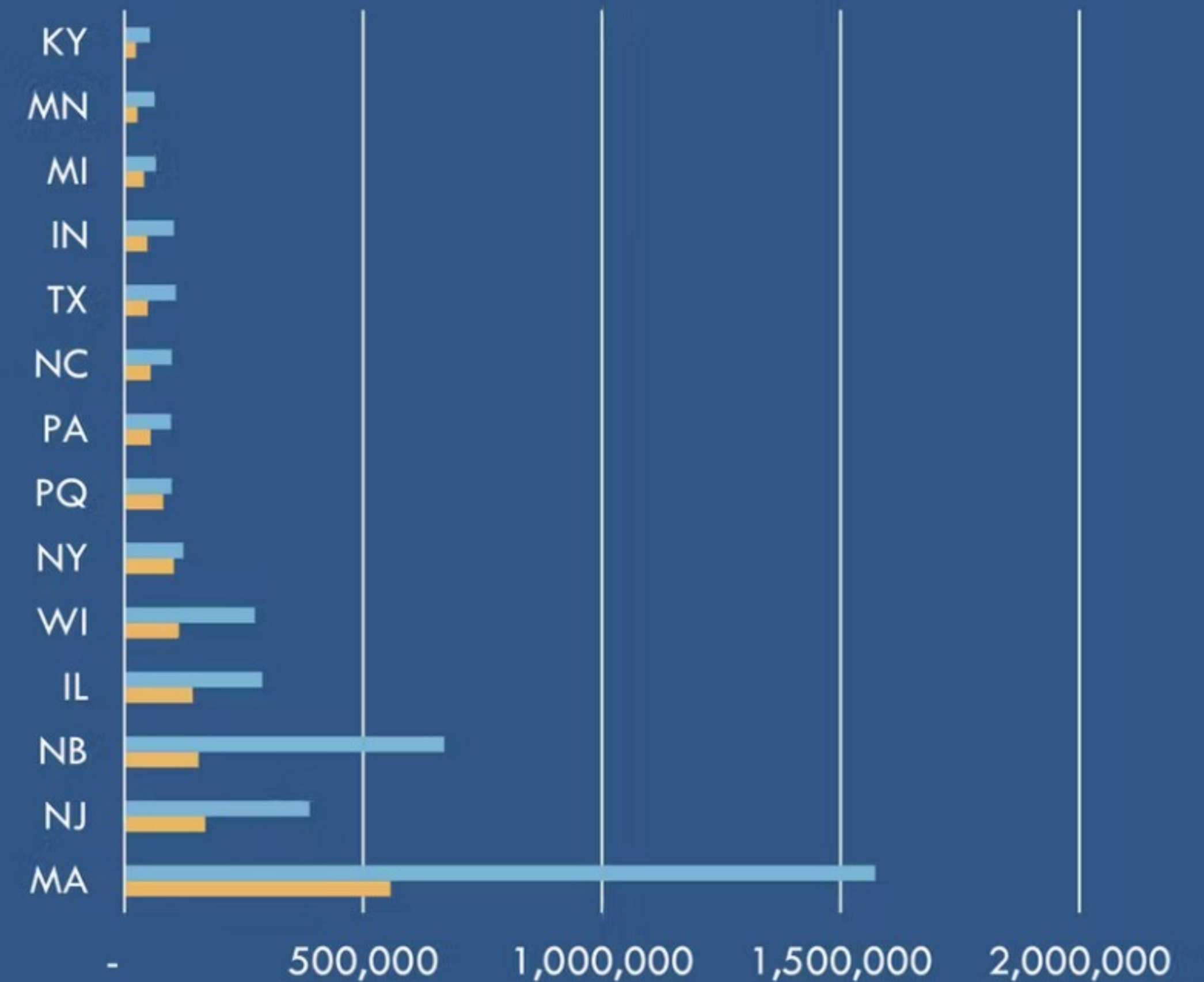
Source: 2019 STB confidential Carload Waybill Sample, and S&P Global Forecast 2019-2050

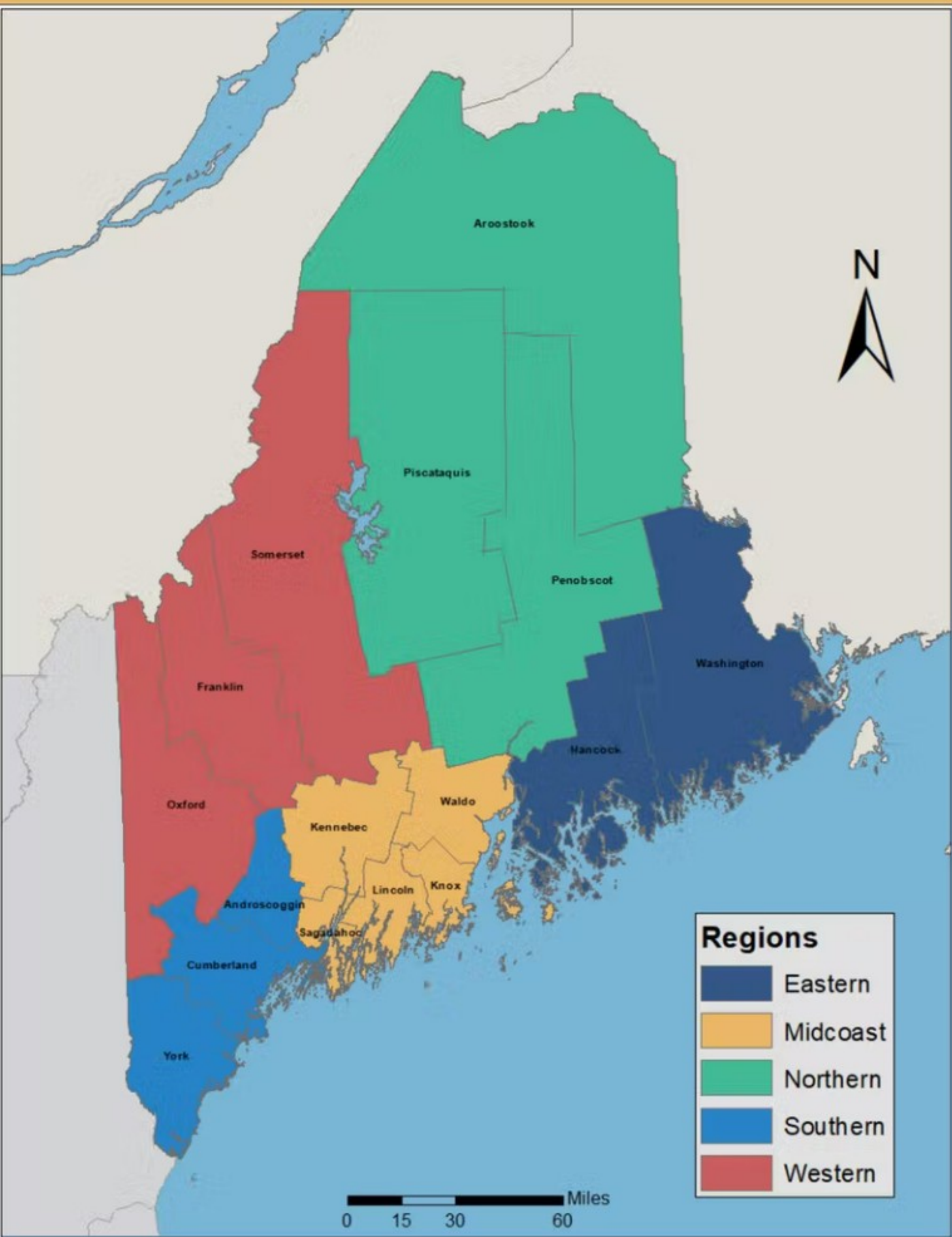
TRADING PARTNERS 2019-2050: *PRELIMINARY RESULTS*

Inbound Tons

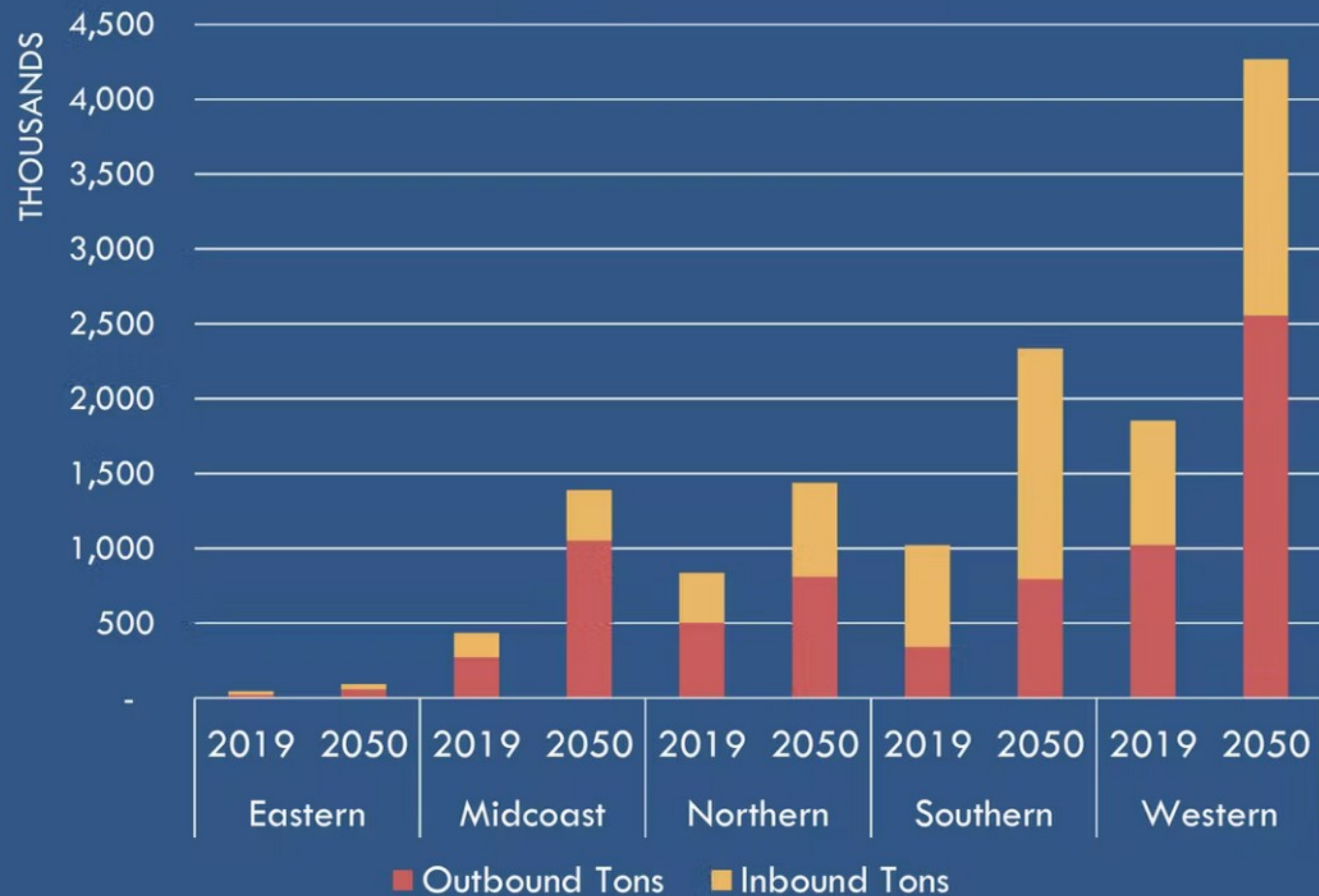


Outbound Tons

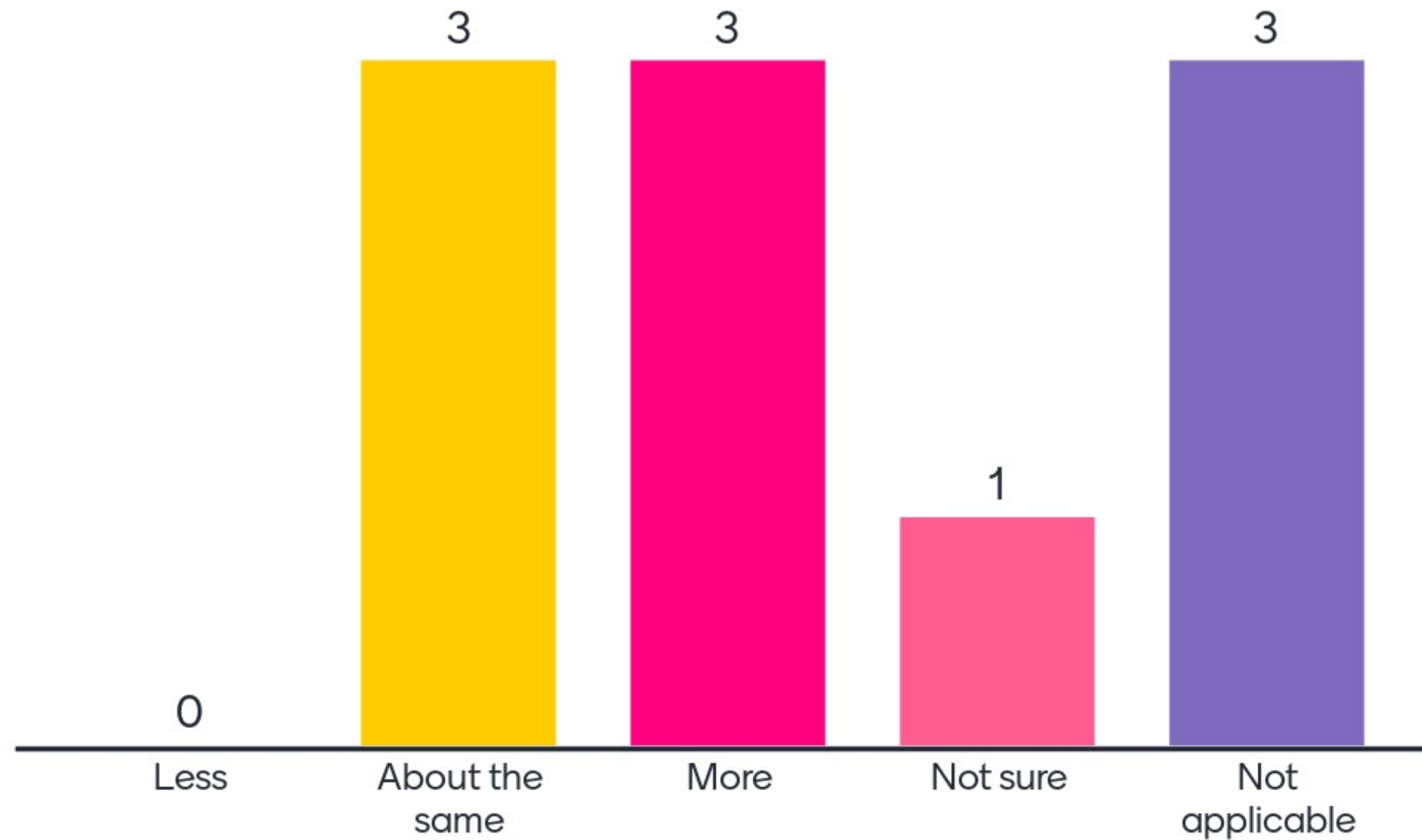




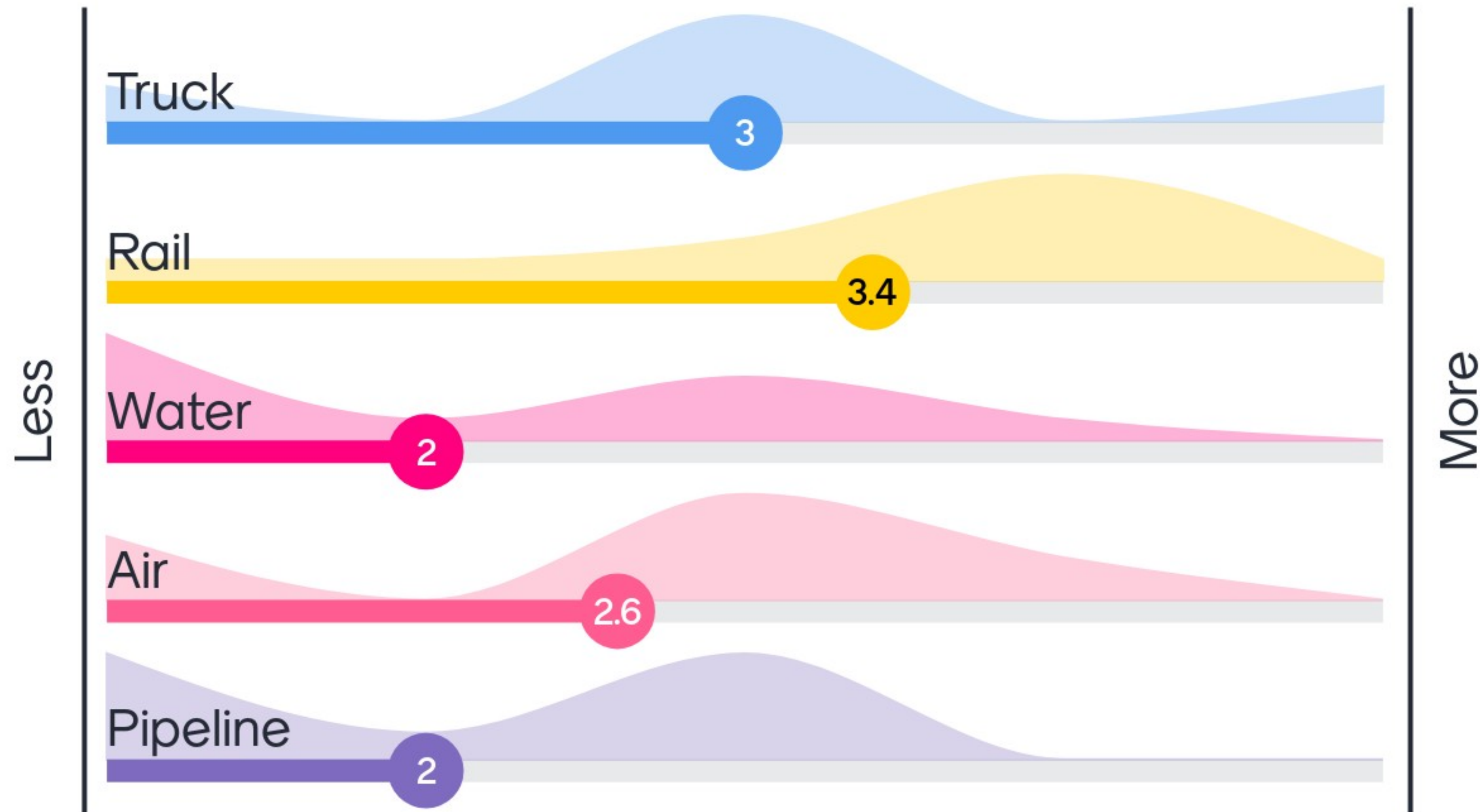
RAIL FREIGHT BY MAINE REGION 2019-2050: *PRELIMINARY RESULTS*



How much volume do you project your industry/business/region will be shipping by rail in Maine over the next 10 years



Do you see a change in what transportation modes your business/industry/region uses in the future?



Do these trends make sense to you? How so?

Mostly. But container volumes at the IMT in Portland are sharply higher.

The trends show population decreasing but production greatly increasing. How will production increase with less people to do the work?

More funding more IRAP

Hard to tell - so few participants

Concur with production v. demographic question.

We are hearing from an increasing number of agricultural producers who are seriously looking at increasing rail usage. Unsure about the forest industry.

Are there any new markets considered in these trends through Maine? It appears to be trends applied to existing market uses.

How do these trends align with/affect long term forecasts that you are seeing in your business/industry/region?

STATE RAIL PLAN OUTREACH

RAC Meetings

Stakeholder
Interviews

Public Meetings



STAKEHOLDER INTERVIEWS CONDUCTED

Railroads

- Canadian Pacific Railway
- Pan Am Railways
- Genesee & Wyoming
- NBM Railways
- Finger Lakes Railway

Shippers

- Forest Products (Wood, Paper and Pulp Products)
- Food Products
- Petroleum Products

Neighboring States and Provinces

- MassDOT
- NHDOT
- New Brunswick, Transportation and Infrastructure
- Port of St. John (NB)

Advocacy Groups

- Trainriders Northeast
- Maine Rail Group
- Maine Rail Transit Coalition
- Maine Trails Coalition
- Rail Users' Network
- Paul Weiss

TRENDS



COVID impacts on traffic



Supply chain constraints



Workforce shortage



Paper mill traffic decrease and shifts



Balance of inbounds vs. outbounds is a big challenge



Significant propane business



Opportunity for municipal solid waste traffic

TRENDS (CONT.)



Rockland Branch freight decrease



Inbound heating oil via Searsport ended a year ago due to unreliability of service



Food industry experiencing growth across North America. Maxed out as far as capacity unless new capital investment.



Forest products industry relies heavily on rail for longer distances. No capacity to truck it.



Shift of wood chips market from pulp and paper mills to biomass power plants

NEEDS & ISSUES

Operations/Maintenance/Capacity Improvements

- Concern about Class I service could mean that short-line style service is neglected. ME becomes a passthrough state.
- CP: bring tie conditions up to standard to get trains up to competitive speeds
- Rockland Branch: low bridges. Need 23-ft clearance new construction
- SLR: Upgrade to continuous welded rail. Need for a tie replacement program
- Pan Am: Single tracks between Waterville and Portland. Congestion issues mostly in MA in commuter territory. 286k upgrades (\$42M CRISI grant). For future expansion need double stack clearances.
- Northern Maine rail lines need infrastructure upgrades to increase speeds and reduce turn times
- Challenges with capacity at Northern Maine terminals due to rail service unreliability
- Additional and bigger sidings
- Weight limitations on bridges to Woodland pulp mill
- Not enough storage capacity for propane cars

NEEDS & ISSUES

Safety

- Upgrade at grade crossings with gates, lights and flashers

Rolling Stock

- SLR: modernize fleet
- Improvement in cars and engines to avoid equipment failure and downtime

Regulatory / Policy

- FDA restrictions and reporting requirements on food transiting the U.S.
- Need to extend trucking HOS relief which helped greatly during pandemic
- Need for regional harmonization of HOS
- Reciprocal switching
- Canada does not allow mixing of wood species (hardwood and softwood) on cars. Mixing would help maximize length of the car
- Harmonize regional truck weight regulations

OPPORTUNITIES

Intermodal growth opportunities

CSX to have more substantial **presence** in New England with Pan Am acquisition

Wages for **trucking** up and **shortage**. Opportunity to ship by rail

Food industry: Not feasible to ship rail outbound shipments. Will revise new landscape with **two Class I railroads**

Finger Lakes Railway to develop proposal for passenger rail service in the **Rockland Branch**

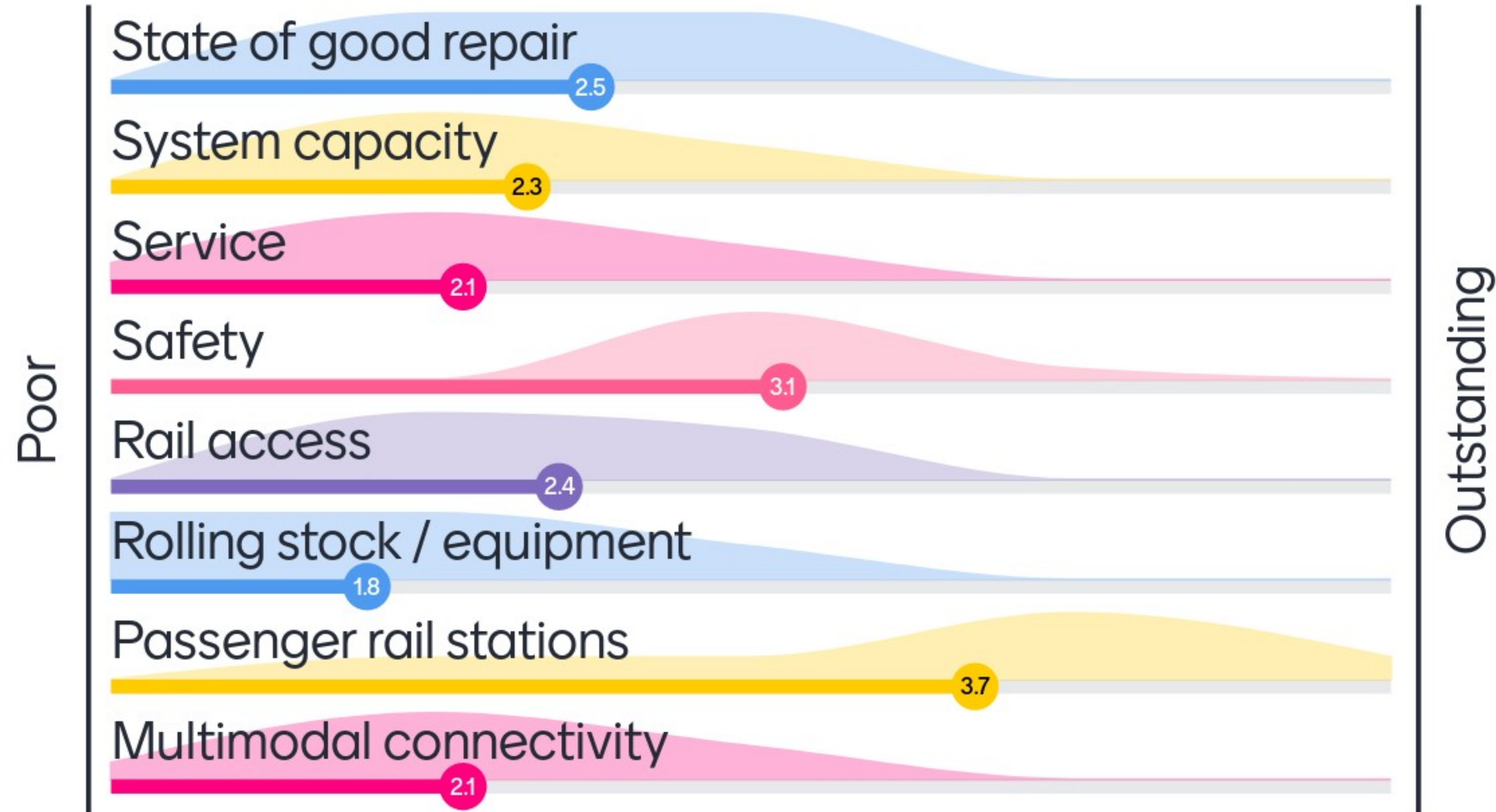
Potential opportunities for growth in rail use for chemical and propane facilities in **Searsport**

Clean energy trends: Opportunities of shipments of biofuels to mix with heating oil

Potential to provide rail access to mills not being served by rail

Continued funding of **IRAP** program, partnerships for discretionary Federal grants

How is the rail system and rail service performing?



Please specify rail needs and/or opportunities

rail cars to move raw forest products - logs and chips

More investment for capacity increases on busy corridors.

More track capacity is needed to support the reliable movement of freight and passenger trains.

Need for more rail cars that can be used to move raw forest products. Currently, there is no capacity to be used in Maine other than on the Northern maine rail system

Need to figure out how to get raw product to main line sidings in a cost effective manner. Seems as if ancillary lesser lines (Caribou as an example) are not being maintained.

Grand crossing enhancements should be considered to sustain safety, and consideration should also be given to grade crossing separations, specifically on busy freight and corridors shared with passenger service.



WE NEED YOUR INPUT!

- » What are the most important rail system **needs**?
- » What are the most important **opportunities** for rail transport in Maine?
- » Any **other considerations**?
- » **Link** will be shared so you can **provide input** on your own time **through July 22**



HOW TO PROVIDE INPUT?

» **Step 1** – Access web map

- [MaineDOT Freight Network Public Comments \(arcgis.com\)](#)
(arcgis.com)

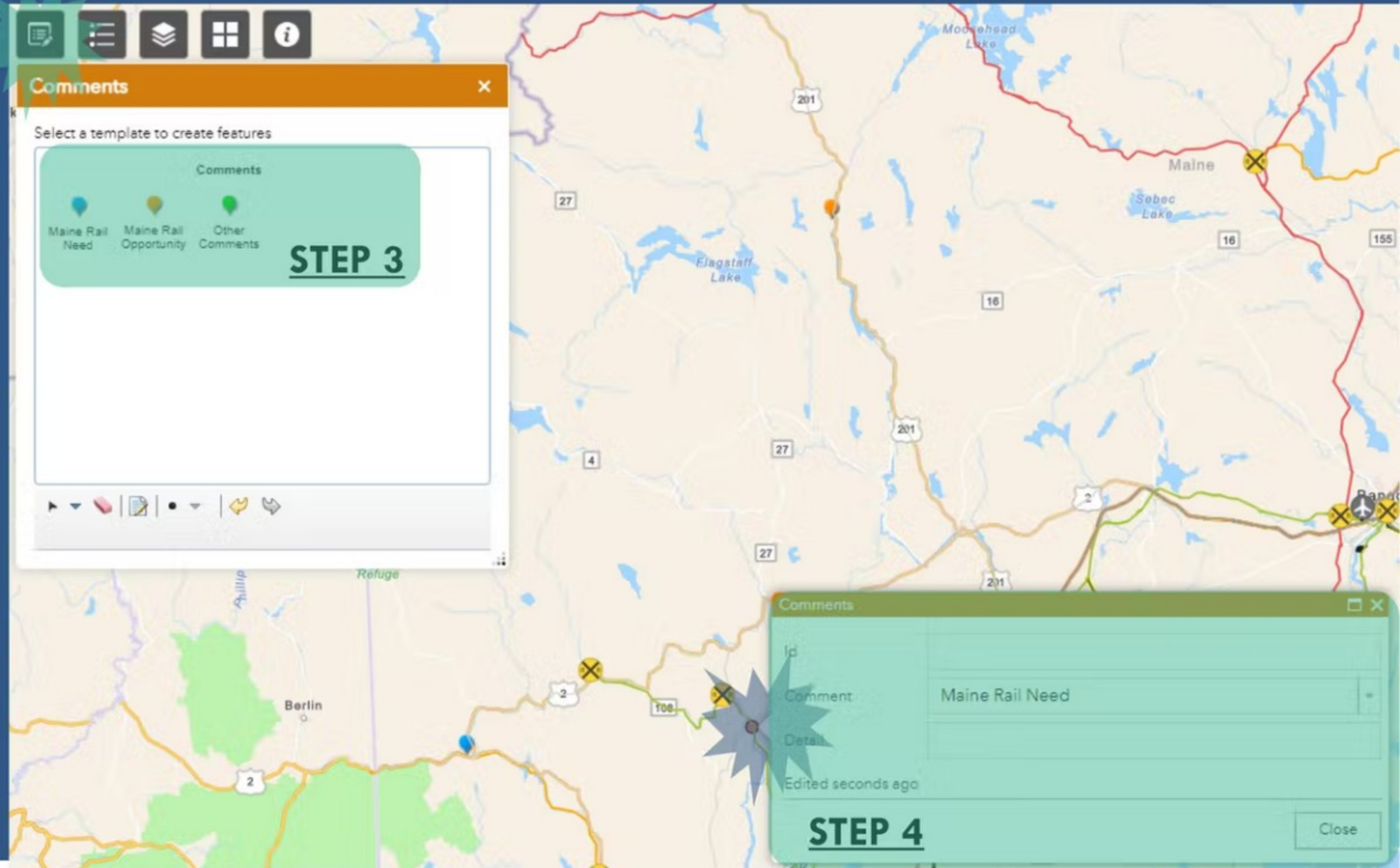
» **Step 2** – Click “Add Comments”

» **Step 3** – Select a symbol to add to the map

» **Step 4** – Click the map to add a point, add a comment in the “Detail” box

» Repeat as needed

STEP 2



NEXT STEPS

- » Collect input on needs and opportunities via link provided – July 2022
- » Continue to develop Passenger Rail Scenario Forecasting – Summer 2022
- » Needs and Opportunities Assessment – Summer 2022
- » Frameworks for Evaluating Potential Passenger Rail Services, and Proposed Alternative Uses of OOS State-Owned Rail Lines – Summer/Fall 2022
- » Rail Service and Investment Plan – Fall 2022
- » Final RAC and Public Meeting – Fall 2022
- » Draft Plan – Fall 2022
- » Final Plan – Winter 2022



THANK YOU QUESTIONS?

CHECK OUT THE STATE RAIL PLAN WEBSITE:
[HTTPS://WWW.MAINE.GOV/MDOT/OFPS/RAIL-PLAN/](https://www.maine.gov/mdot/ofps/rail-plan/)

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