

Putting America Back on Track: The Case for a 21st Century Public Rail System

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The US Rail System: A brief overview

- 2 Class Is in the East
- 2 Class Is in the West
- 2 Canadian Class Is down the middle

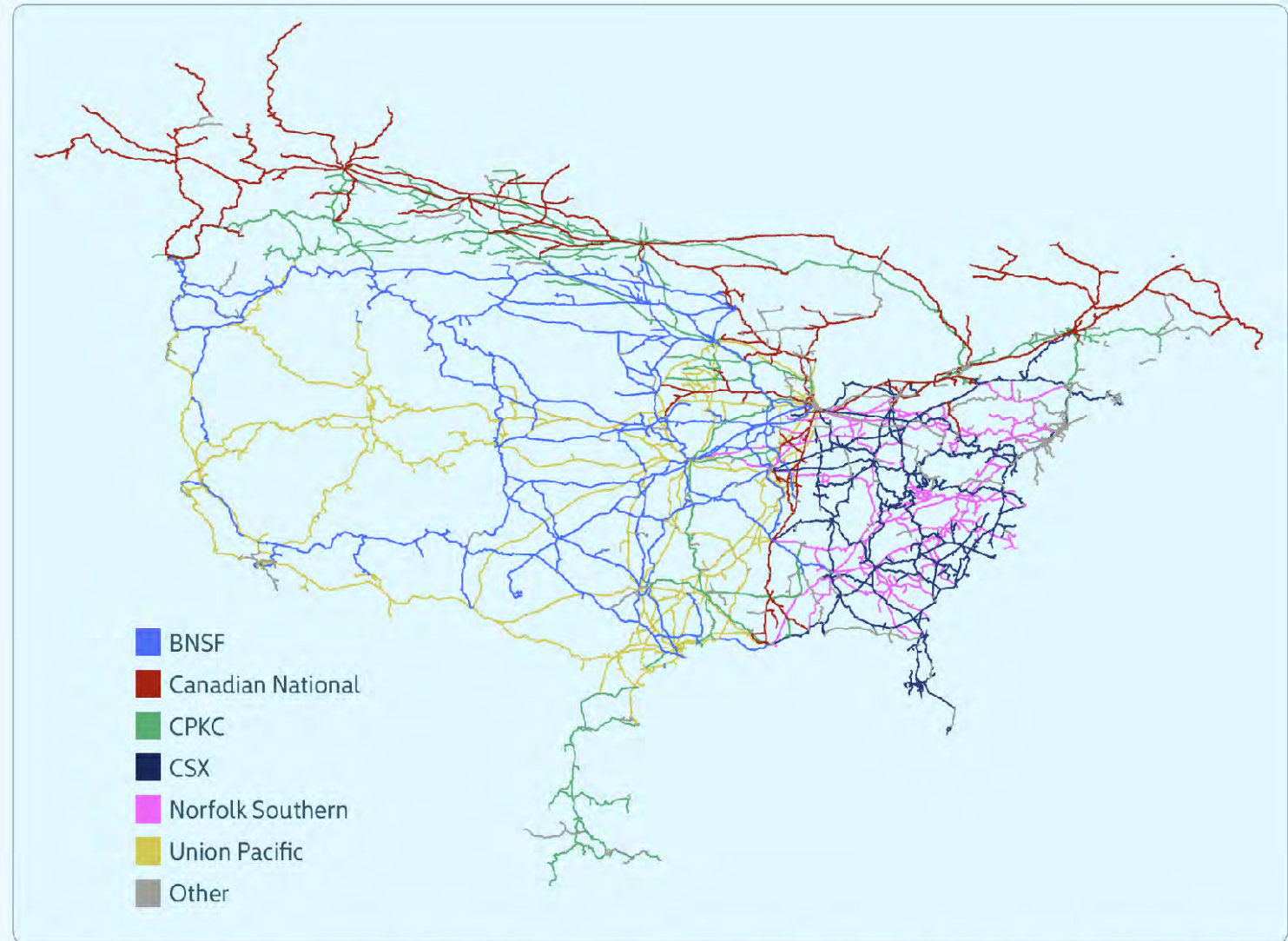


Figure 1. Mainline tracks of North American Class I railroads operating in the United States²

North American Class I Railroads – 2023 Revenue

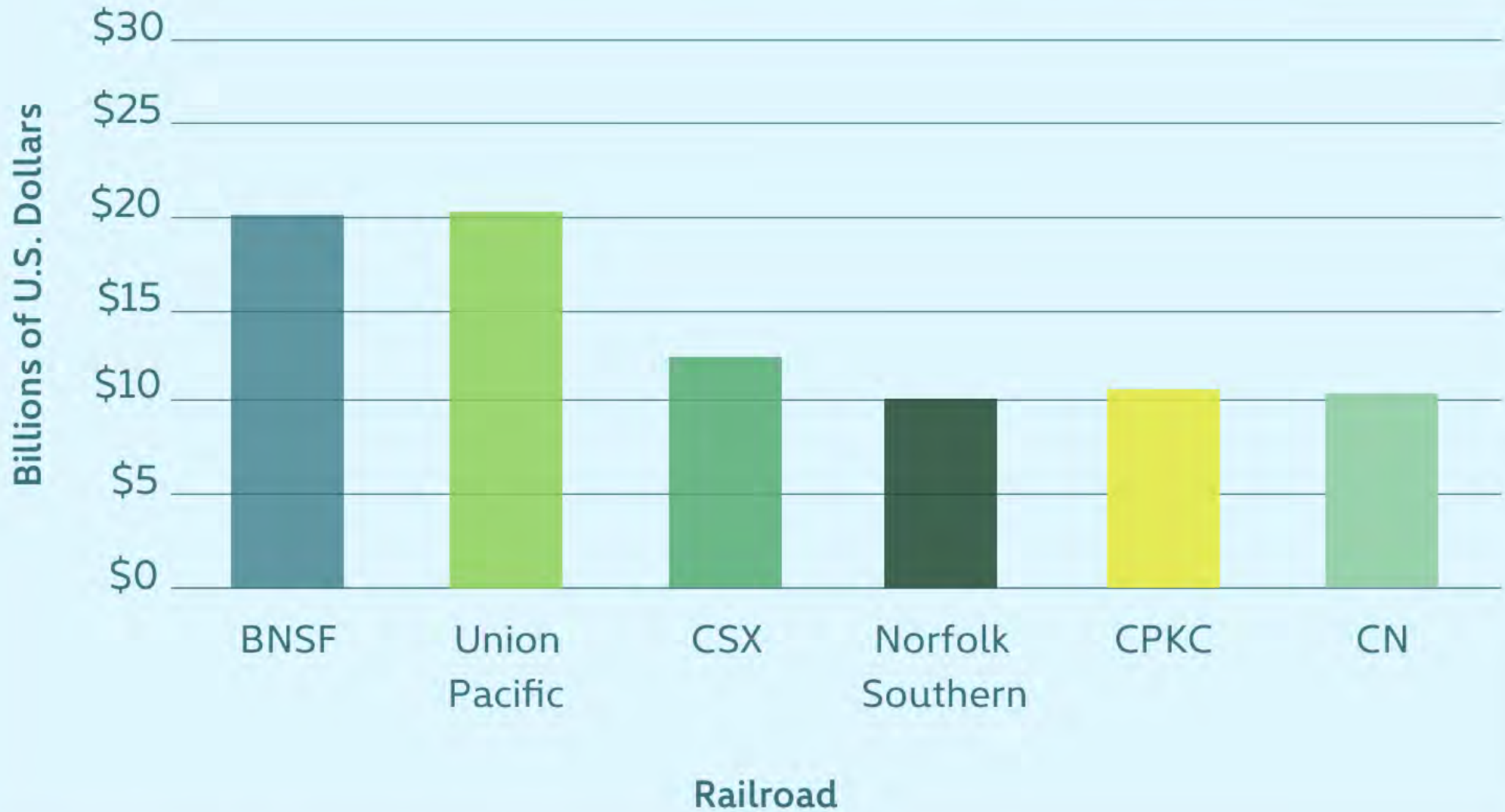


Figure 2. Class I railroads by 2023 revenue³



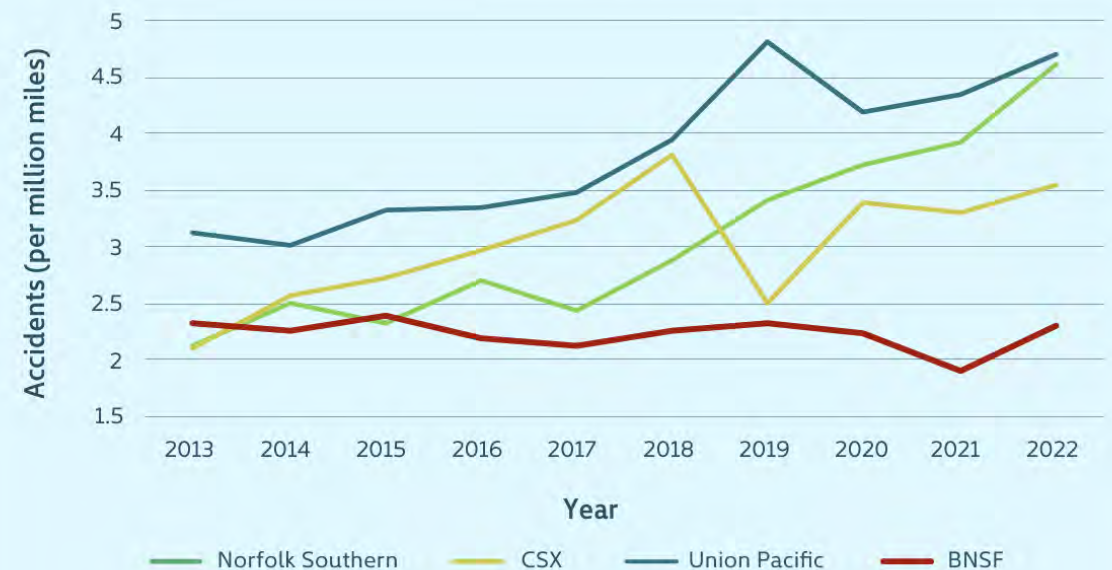
Safety

- Accident rate up 28 percent (2013-22)
- Worse on Class Is...
- 72.7 percent of Union Pacific's locomotives have FRA defects

Railroad Accidents per Million Miles



Accidents per Million Miles Among Major US Class I Railroads



Workers

- From 210,000 to 150,000 rail workers in 10 years
- Retaliation, injuries, and understaffing
- Inspectors told to ignore defects



Figure 5. Total railroad employment (2013-2024)²¹

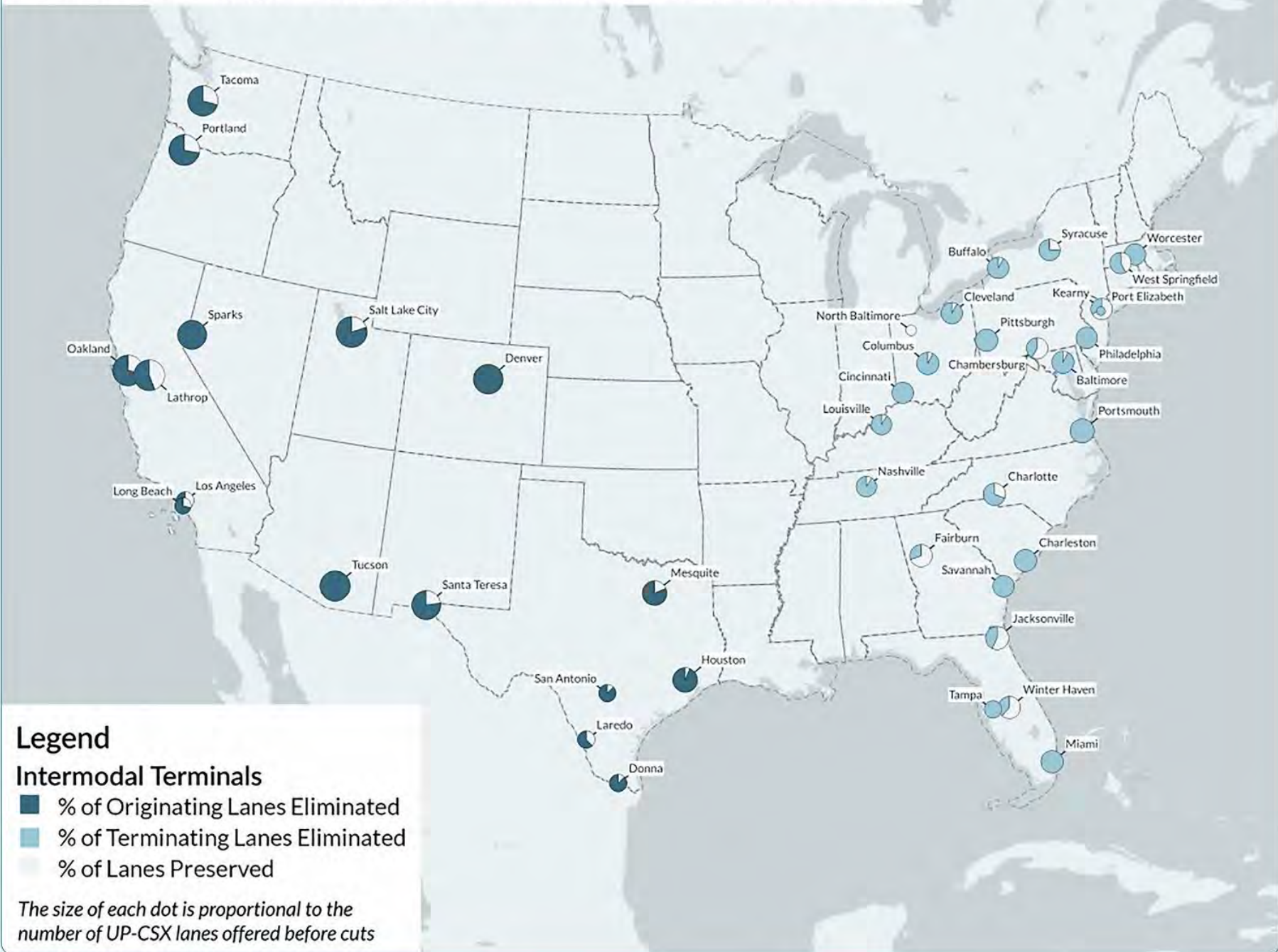
The Economy and Service Quality

- 30% fewer carloads of freight in 2023 than in 2000
- Rail customers described service as “**the worst it has ever been**” during a Surface Transportation Board hearing in 2022
- Class Is are providing a fraction of the service promised to customers, with decreased reliability



Figure 6. Monthly carloads shipped by rail, seasonally adjusted, 2000-2023³⁹

2018 Union Pacific-CSX Eastbound Interline Intermodal Cuts



Legend

Intermodal Terminals

- % of Originating Lanes Eliminated
- % of Terminating Lanes Eliminated
- % of Lanes Preserved

The size of each dot is proportional to the number of UP-CSX lanes offered before cuts

Norfolk Southern Proxy Fight

NS Management:

- Slashed 15% of Intermodal Lanes in 1 day
- Committed to sub-60% OR by 2026



Infrastructure Investment

- AAR Study (2007): \$148 billion by 2035
- Class I's share: \$135 billion
- Instead, \$196 billion in buybacks/dividends
- Capital investment levels since far below what is necessary

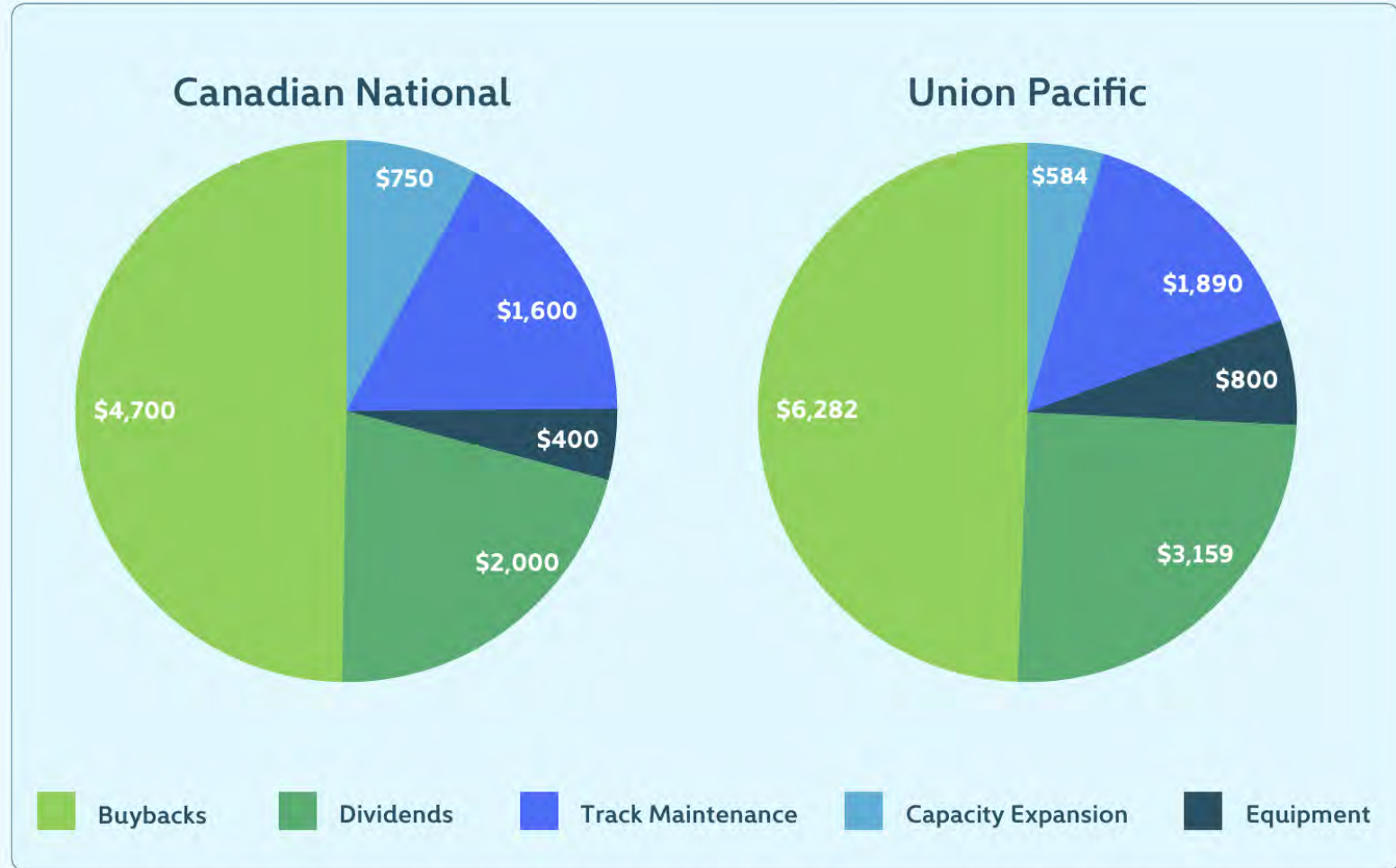


Figure 10. Capital expenditures and shareholder returns, Canadian National and Union Pacific 2022, in millions of U.S. dollars⁵⁷



Figure 9. 2005 train volumes compared to 2005 capacity

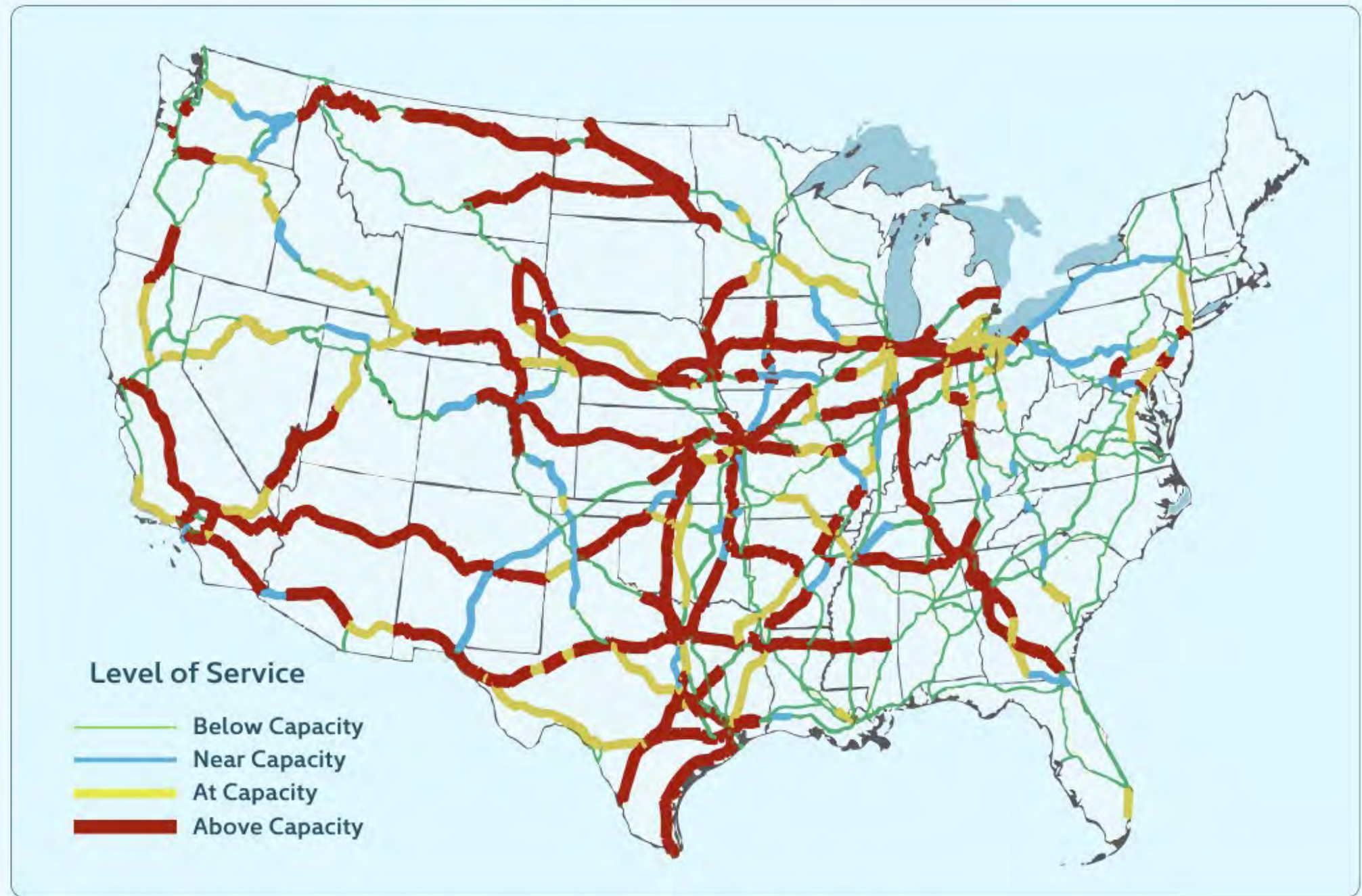


Figure 8. 2035 train volumes compared to 2005 capacity⁵⁰

Electrification

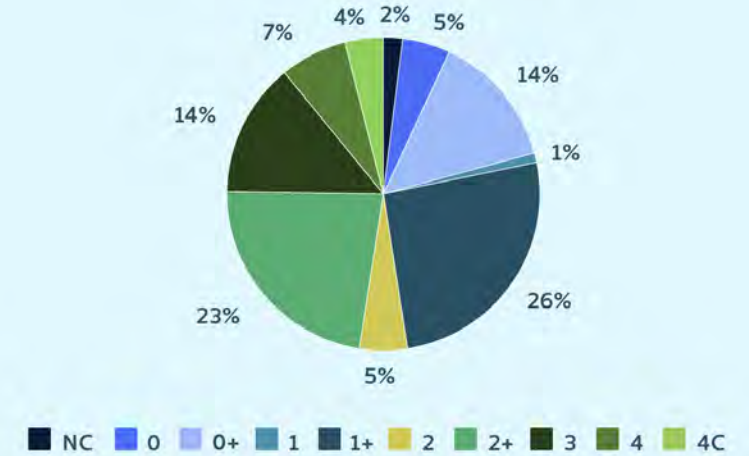
- Locomotive cost: 20-33% lower
- Maintenance: 1/3 or ¼ of diesel per mile
- Operating cost: 25-35% lower
- Incredible energy efficiency
- “the problem is no longer a technical but a financial one.”



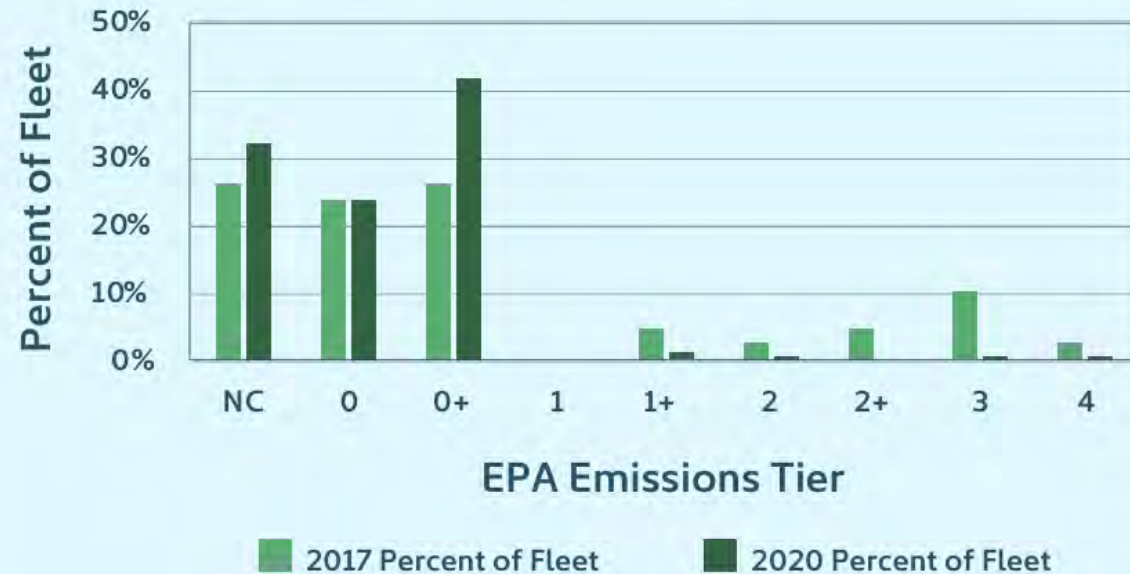
Community Health and Environmental Justice

- Diesel exhaust has a detrimental impact on trackside communities' (and rail workers') health
- 10 times or higher risk of cancer
- Long train block railroad crossings, impeding first responders and forcing children to crawl under railcars to get to school

Class I Line Haul Locomotive Fleet Emissions Tiers, 2020



Class I Yard Locomotive Emissions Tiers



Passenger Service

- In 2023 alone, host railroads (predominantly Class Is) caused 2,238 days of delay to Amtrak passenger trains
- By removing double trackage and cutting maintenance, Class Is have caused passenger train derailments and impeded the expansion of new Amtrak service
- Gulf Coast service (Sunset Limited) suspended post-Katrina; CSX asked for \$2.3 Billion in investments before restoring service



Figure 14. Days of passenger train delay by responsibility, 2023¹⁰⁰



Figure 13. Suspended portion of the Sunset Limited, between New Orleans, Jacksonville, and Orlando⁹³

History of Public Rail in the United States

The Baltimore & Ohio Railroad

- America's first common carrier
- State-chartered
- 50% state and city owned until turn of century
- Relied on frequent government financing





4879

4879

PENNSYLVANIA

4879

Hotel PLAZA

DAIRY

The Civil War



- Railroad and Telegraph Act of 1862
- Centralized military control over railroads near the front
- Used for coordination... and strikebreaking

Federal Land Grants



- 179 million acres
- Additional tens of millions in subsidized loans
- Still publicly owned rights of way*

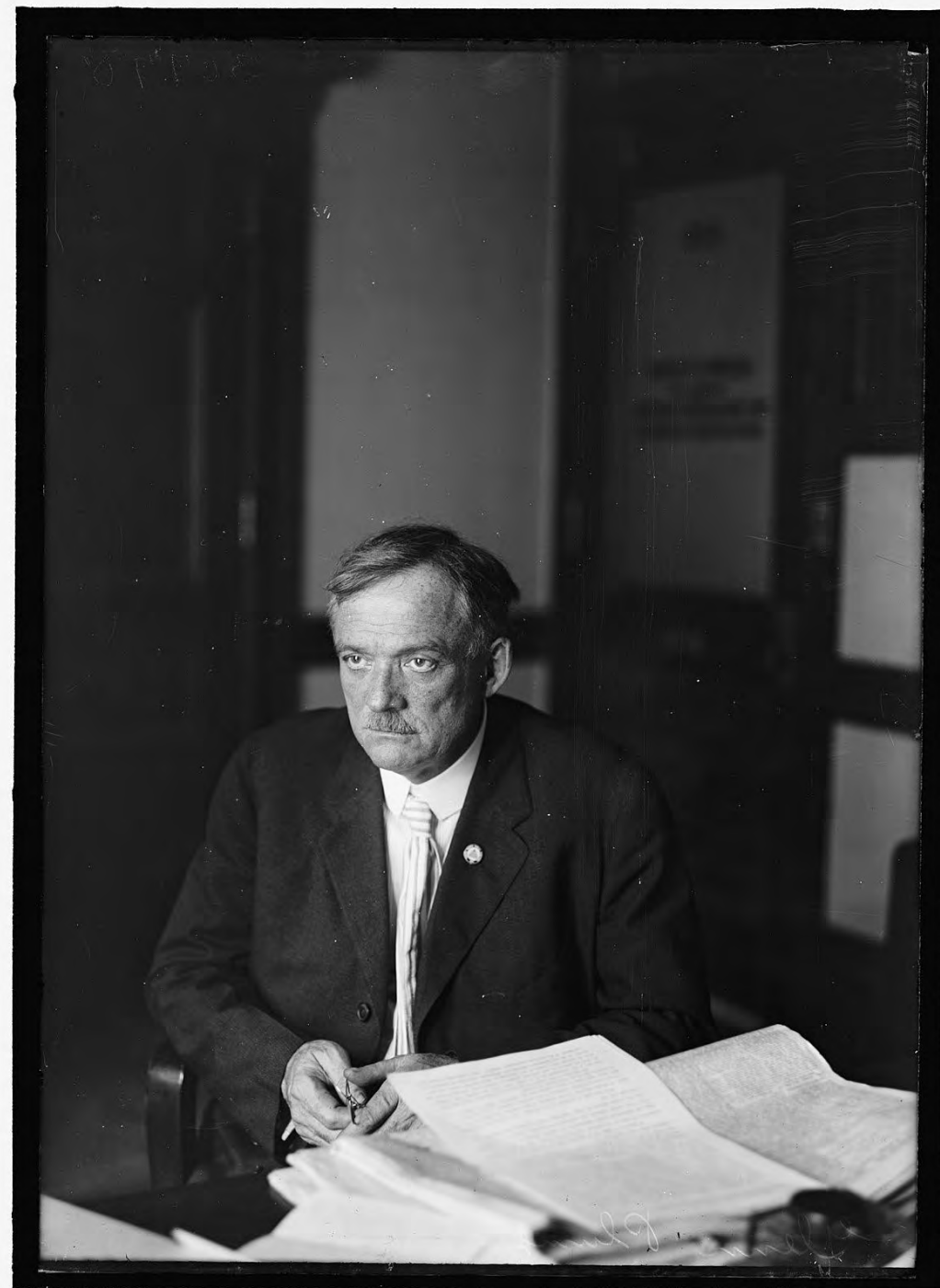
World War One

- Utter chaos under private management
- Failure of private operations to voluntarily coordinate
- Government control and operations 1917-20
- Standardized rolling stock
- Pooling, coordination of materiel



Plumb Plan

- Tripartite control
- Not-for-profit corporation
- Government ownership, democratic control
- Supported by entire rail labor movement
- Plumb Plan League



Conrail



- Regional Rail Reorganization Act of 1973
- Began operations April 1, 1976
- Profitable by 1981
- Massive cuts to branch lines, electrification
- Sold off...

Present-day Public Rail

Amtrak

- Amtrak day: May 1, 1971
- Took over unprofitable passenger services from private RRs
- Setting ridership records to this day



Northeast Corridor

- Nearly 1,000,000 daily trips pre-pandemic
- As of 2023, certain services exceeding pre-pandemic highs
- Also owned by Amtrak: the Wolverine, Keystone, Empire Corridors



Commuter/ Regional Rail

- Legacy Systems
- “New Start” Systems
- Tracks owned or leased...
- Some subcontracted



State-owned Rights-of-way

- Often purchased to avoid abandonment
- All over the country
- 580+ public track miles in GA alone
- NCRR - After return to public infrastructure control in 1998:
 - Passenger speeds from 49 to 79 mph
 - Train lengths from 10-20 to 150
 - Freight from 10 mph to 40 on sections

NORTH CAROLINA RAILROAD COMPANY CORRIDOR



Public Branch Lines, Port Authorities, Terminal Railroads

- Madison RR
 - Bought by City of Madison in 1978
 - \$15 million in infrastructure investment
- Tacoma Rail
 - Since 1914
 - 120 miles of track
 - Not-for-profit utility



International Comparisons

British Rail

- Hatfield Rail Crash
- Fragmented industry (vertical separation)
- Subsidy nearly tripled
- On time performance detrimental (50-66%)
- Re-nationalization has begun



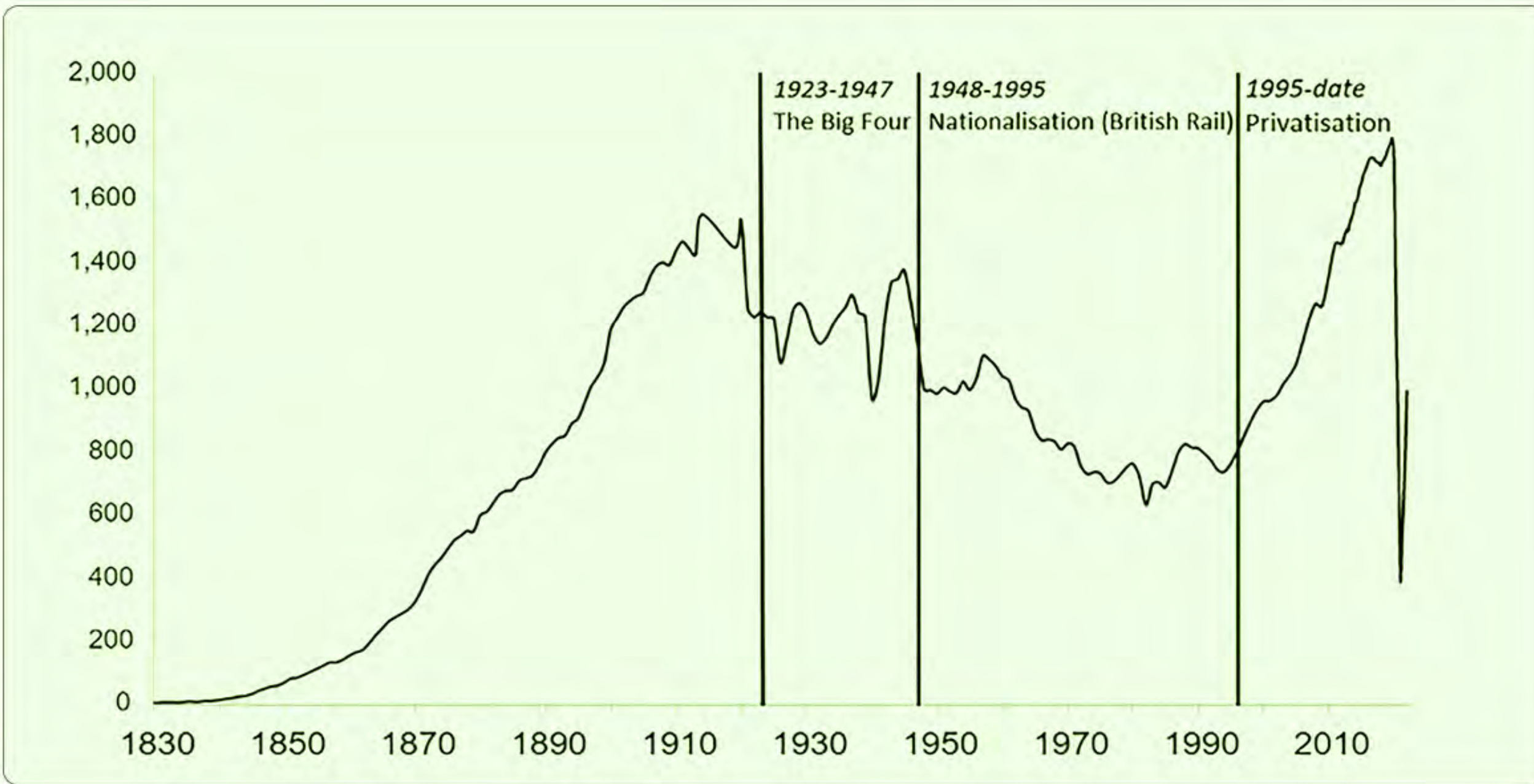


Figure 17. Rail passengers by year in Great Britain (in millions)

Comparative Change in Rail Passenger Kilometers

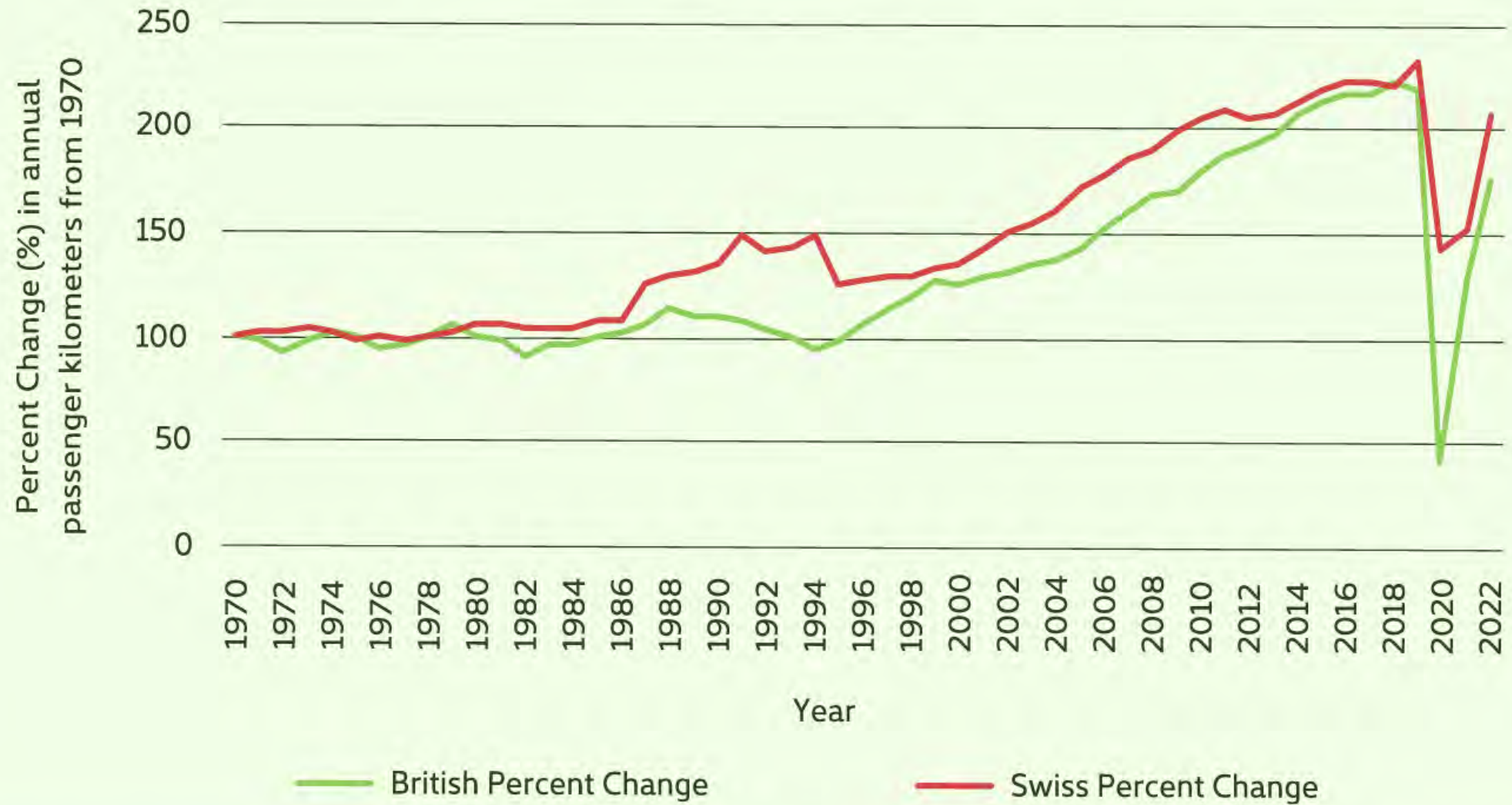


Figure 18. Comparative percent change in rail passenger-kilometers in Great Britain and Switzerland since 1970

Indian Railways

- Dedicated freight corridors
- 40,000 kilometers (25,000 miles) electrified in a decade
- Moves more tonnage than US railroads
- 1.67 billion tons in 2023
- Recovered strongly from the pandemic

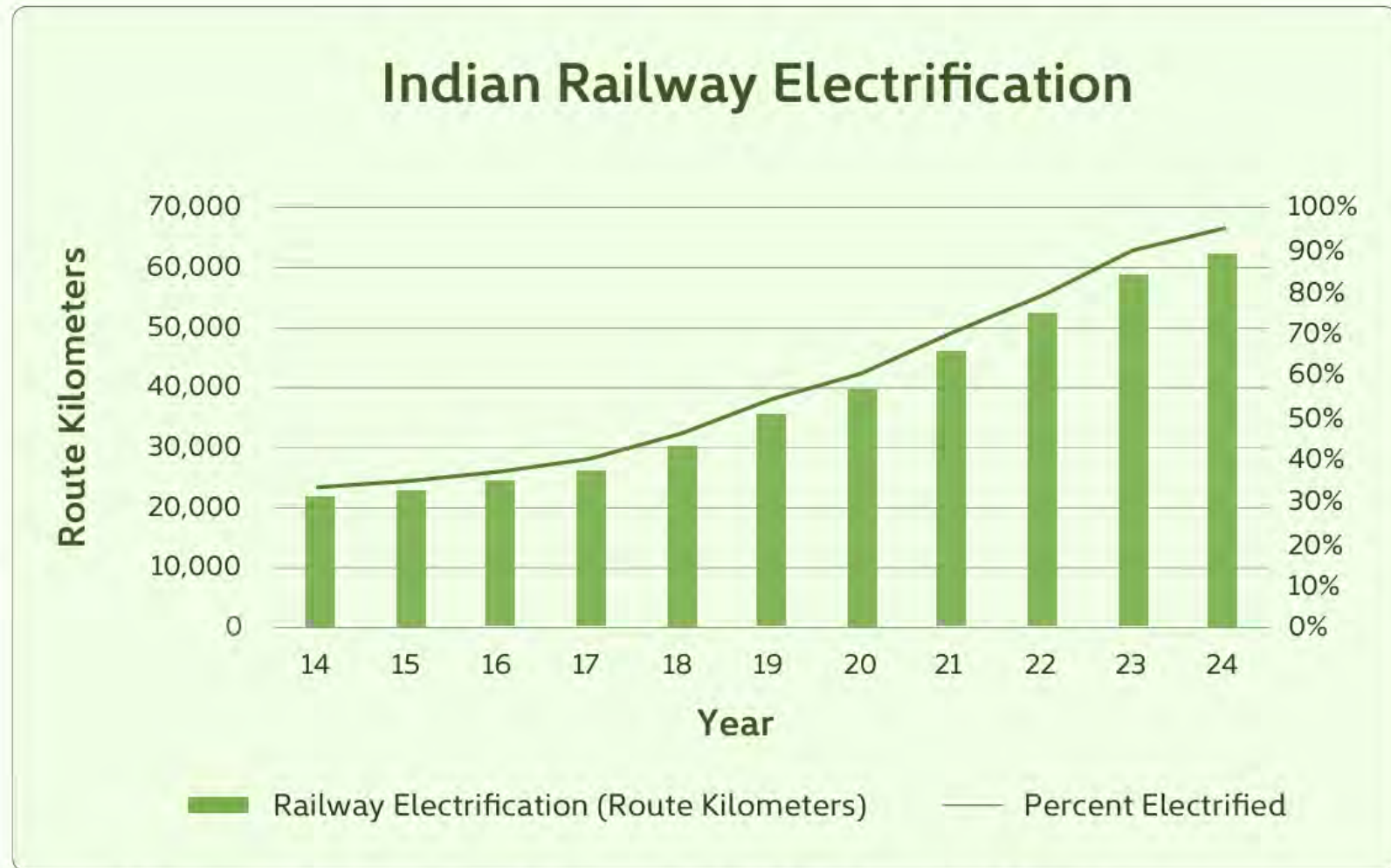


Figure 16. Indian Railway electrification rate (as of February 2024)¹⁸⁷

Japan (JR Group)

- Privatized slowly, beginning in late 80s
- Vertically integrated, regionally separated
- Public investment
- Carefully balanced systems
- Balanced regulation
- Diversification outside of transportation



Switzerland

- Clock-faced pulse timetable
- Highest per-capita ridership, punctuality in Europe
- Freight and passenger both highly coordinated
- Rail carries 74% of transalpine traffic
- Roughly 39% of all freight
- Rejected open access
- 100% electrified



Models of Public Rail

Open Access

- Rejected in the earliest days of rail
- Revived in the 90s, popularized by European Union rail packages
- Theoretically produces competition, innovation
 - Higher quality service
 - Lower cost
- In practice, leads to coordination problems
 - Relatively little competition
 - Immense uncertainty in American context



Franchising/ Leasing

- Employed on several commuter rails and many state-owned ROV
- Public rails, private operator
- Vertical integration or separation
- Question of how to allocate risk looms large



Fully-integrated Rail System

- Cost advantages (economies of density, scope)
- Coordination benefits
 - Easier infrastructure investment
 - Smoother operations
 - Coast-to-coast service
 - Greater service flexibility
- Endorsed by International Transport Workers' Federation (ITF)



Public Rail Offers:

- Critical infrastructure investment
- Full staffing and respect for rail workers
- Tens of thousands of new jobs
- Proper electrification
- Reliable, quality service to lead a modal shift to rail
- Lower costs of goods
- Passenger service expansion



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