



# Amtrak Acela History

Presented by: Roger Harris, President

# Shinkansen 0 Series

**In Service: 1964**

**Speed:  
200 kmh+**



# Penn Central Budd Metroliner

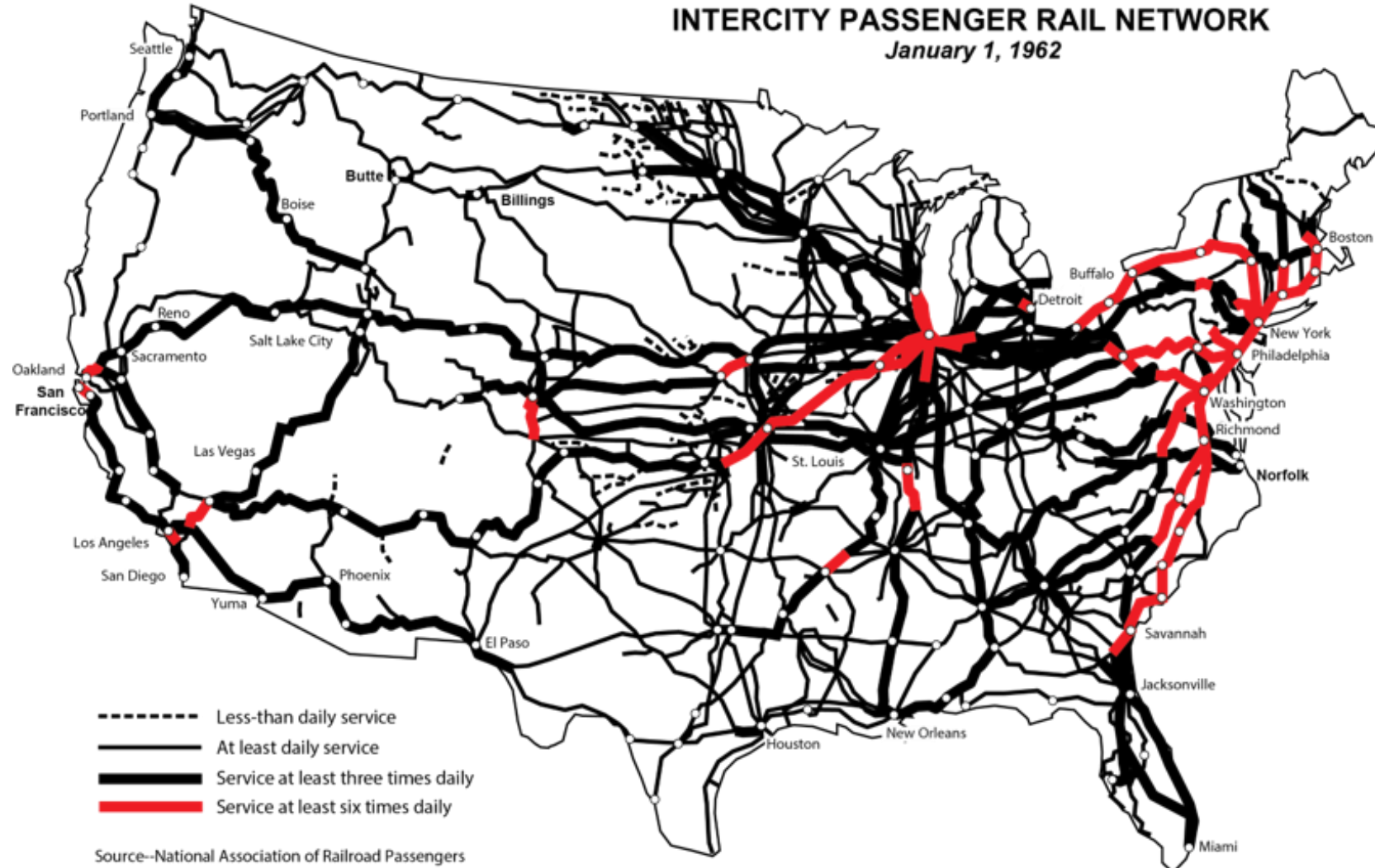
**In Service**  
**Planned : 1967**  
**Actual: 1969**

**Speed:**  
**192 kmh**

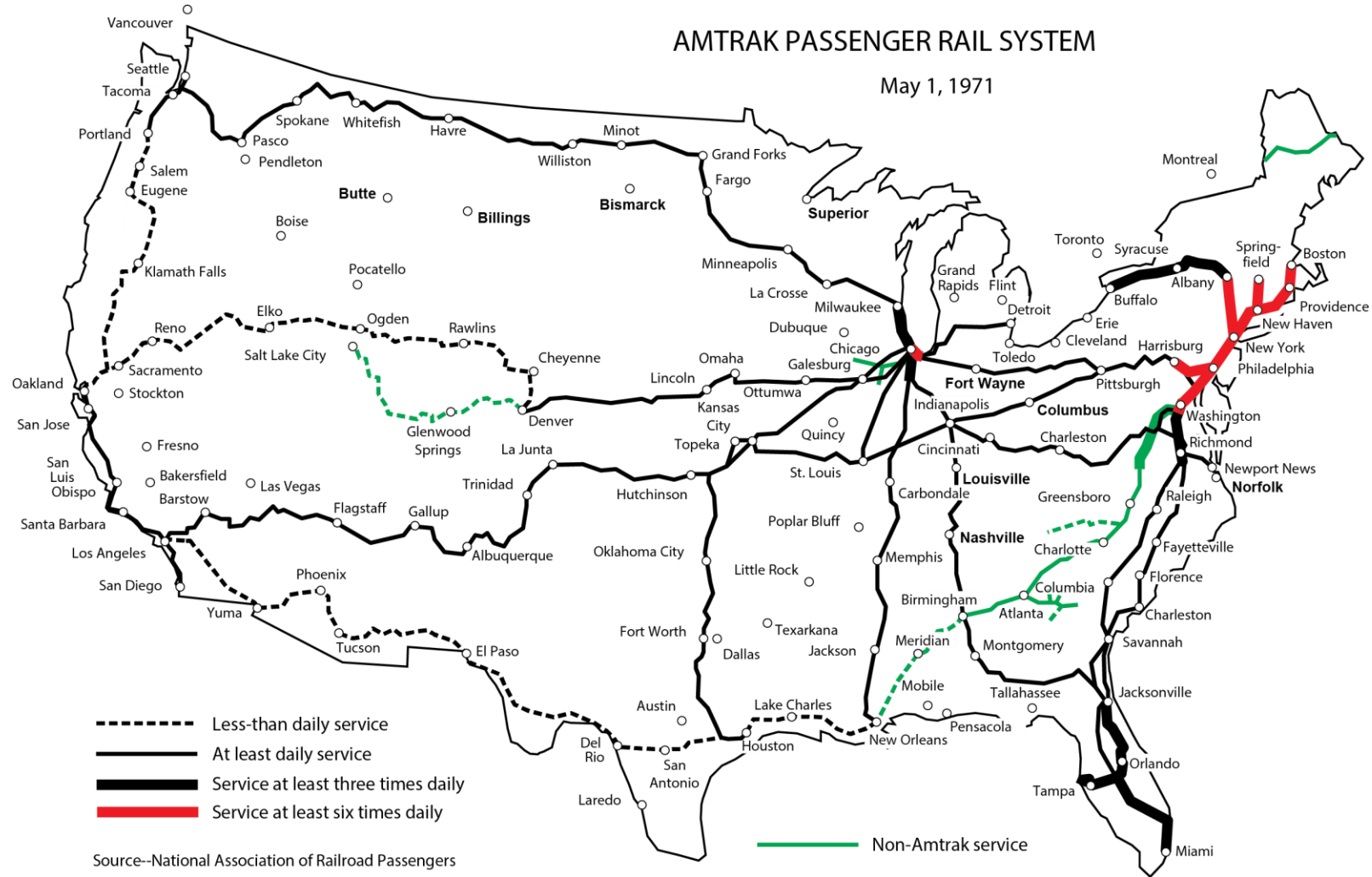




# Passenger Rail in America – 1962



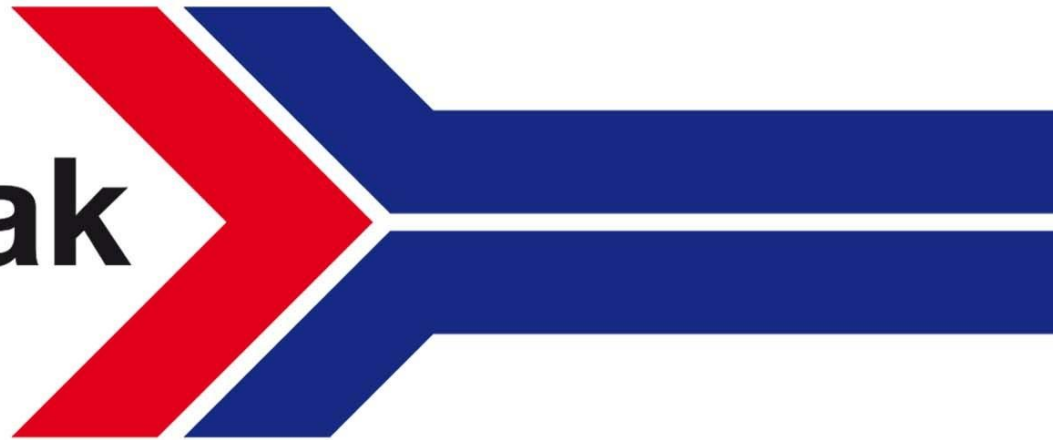
# Passenger Rail in America - 1971





# Restructuring of Railroad Industry

**Amtrak**



# Early Years at Amtrak

**In Service**

**Amfleet : 1975**

**Superliner: 1979**

**Speed**

**Amfleet: 176 kmh**

**Superliner: 144 kmh**





# ABB X2000 (Sweden)

**Testing: 1993**

**Max speed:  
200 kmh**





# *Acela* First Generation

**In Service: 2000**

**Speed:  
240 kmh**



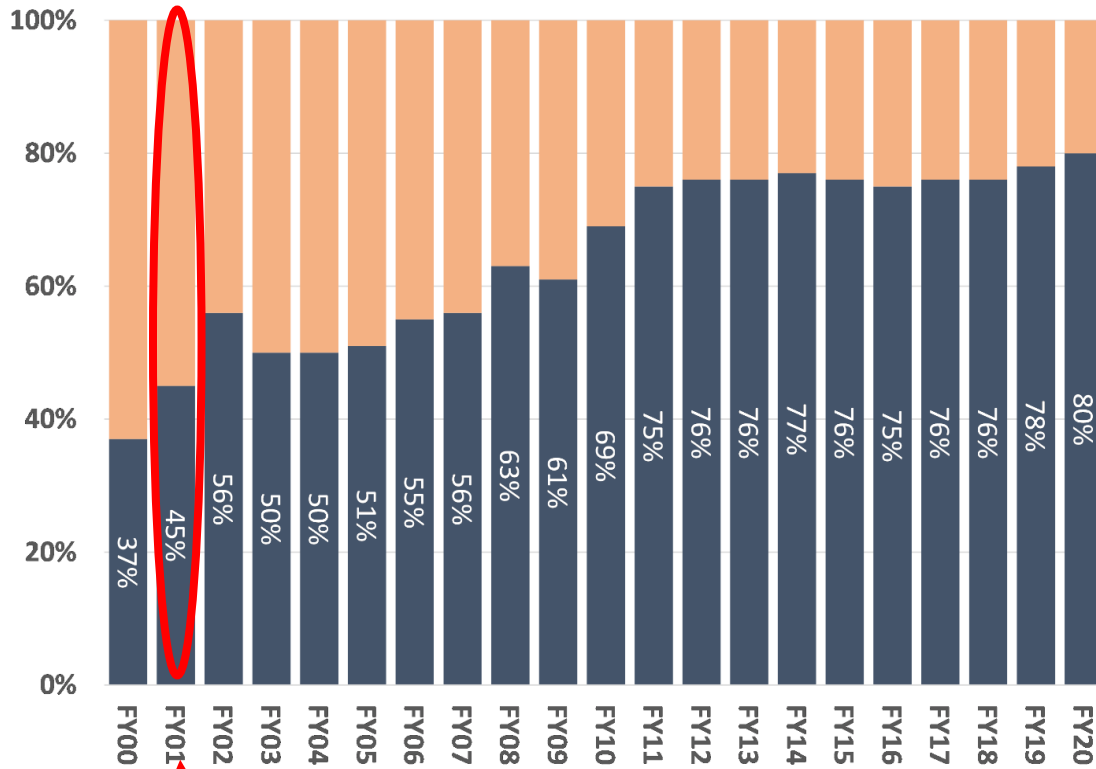
# Infrastructure Preparation and Cost



- **\$1.5 billion for infrastructure upgrades including:**
  - Electrification of 157 miles of the Northeast Corridor between New Haven, CT and Boston
  - 15,000 catenary poles and 1,550 miles of wire
  - 140 miles of continuous welded rail and 127 realigned curves
  - 300,000 concrete ties
  - 25 power stations
  - Lowered or rebuilt tracks and bridges to provide clearance for the new electrical system
- **\$900 million** for 20 Acela trainsets from Alstom and Bombardier, 15 electric locomotives and 3 new maintenance facilities
- **\$200 million** for stations and environmental mitigation

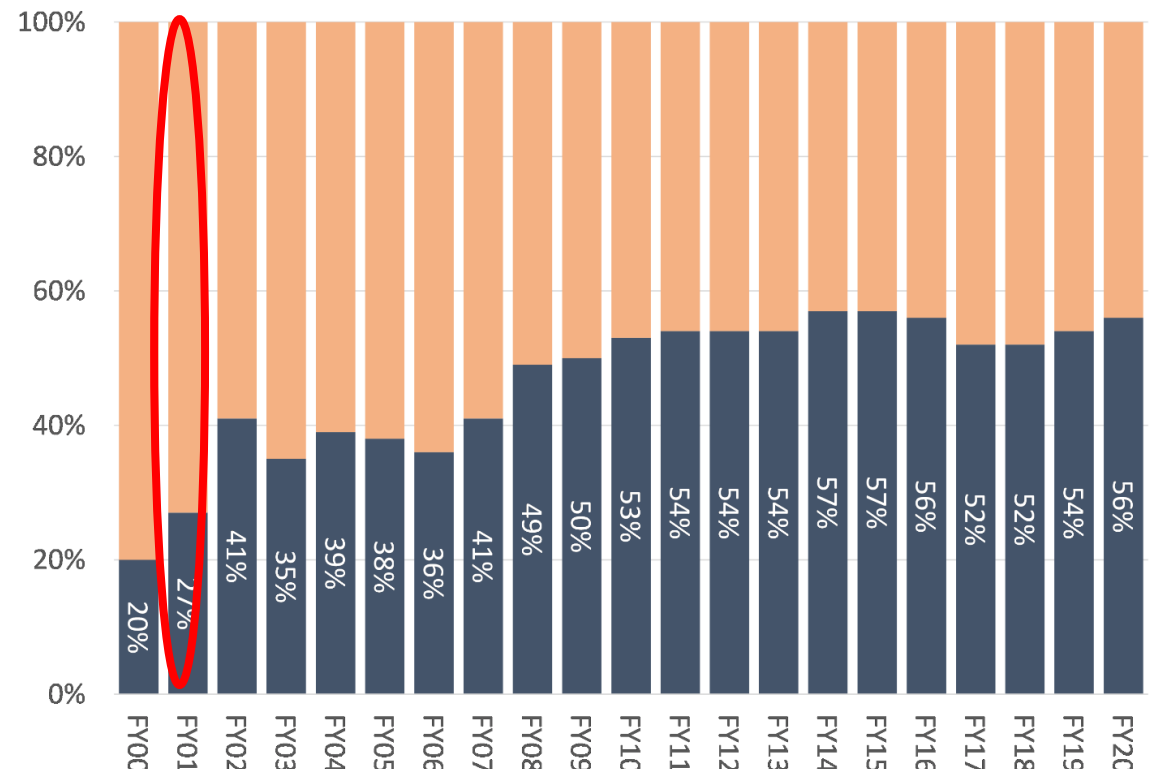
# Market Share – Rail vs. Air

New York-Washington Air-Rail Market



**Acela introduced**

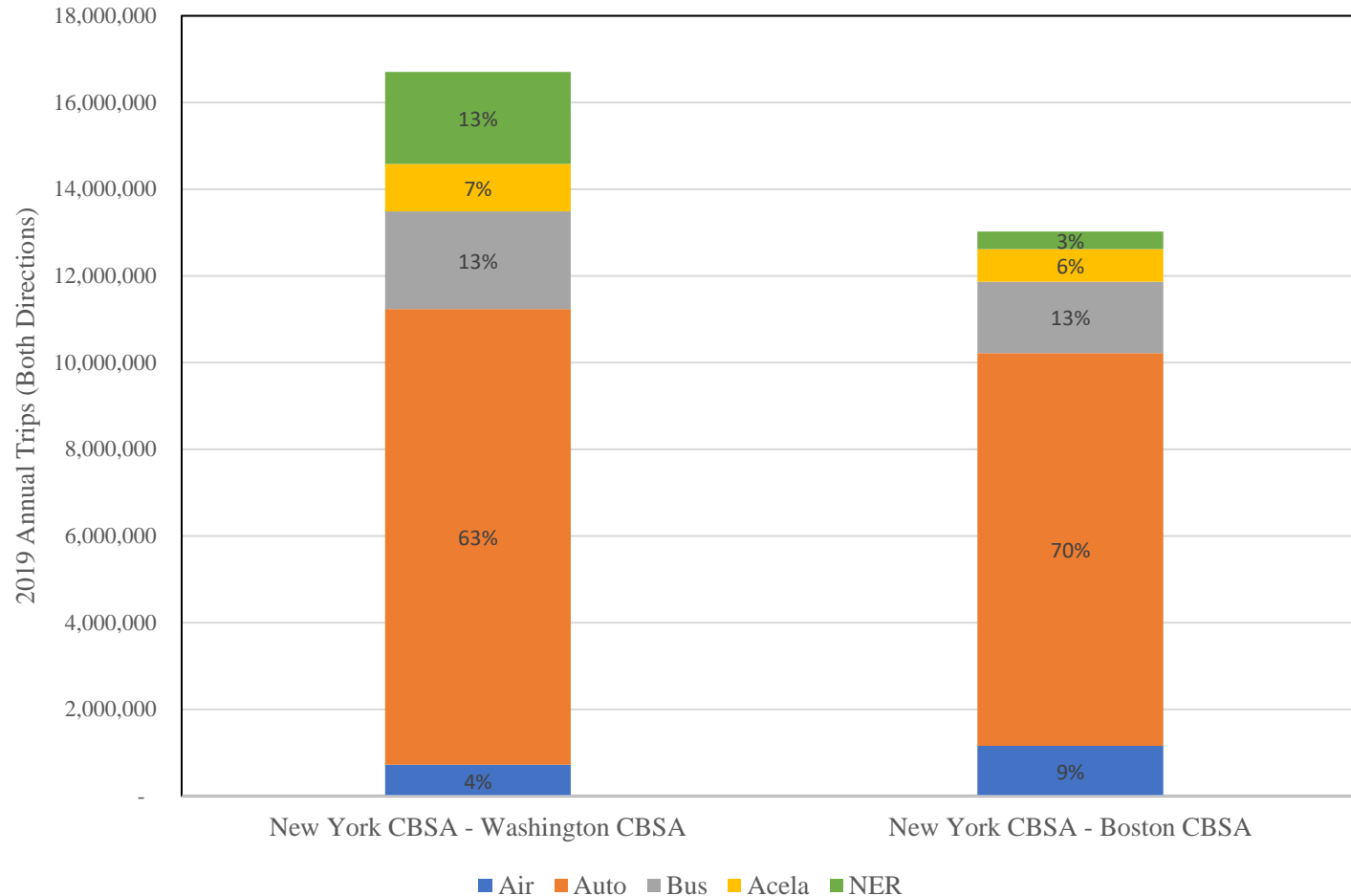
New York-Boston Air-Rail Market



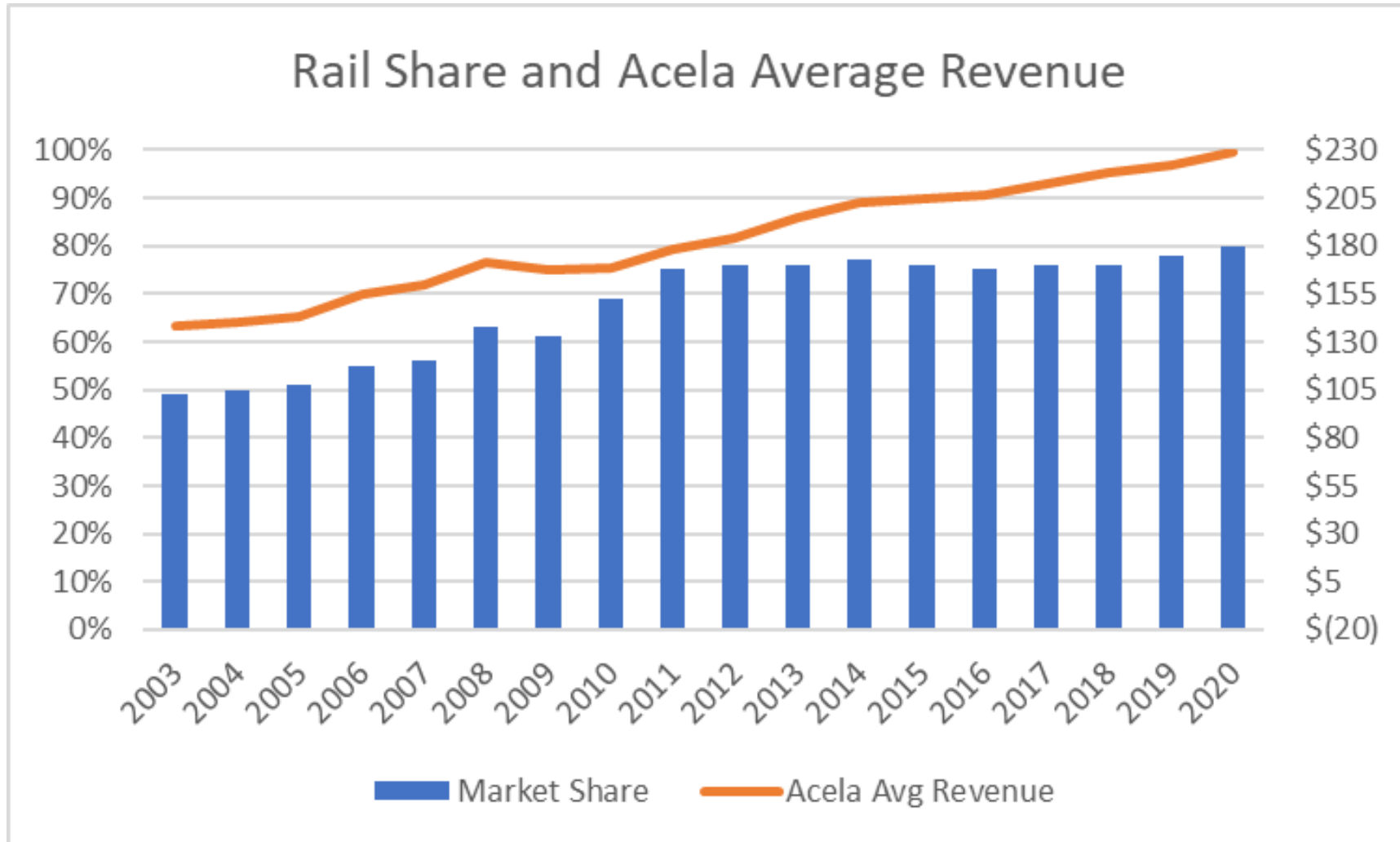
**Acela introduced**



# Volumes & Market Share by Mode



# Acela Revenue vs. Market Share





# New Acela Overview

## Life of Program Investment: \$2.3B

- Trainset contract awarded to Alstom, 2016
- Design and manufacturing of 28 trainsets

## New Acela Service

- Premium service between Washington, DC, Baltimore, Philadelphia, New York City and Boston
- First Class 42 seats/Business Class 336 seats
- Only high-speed service in Americas
- 40% more efficient per seat mile in terms of energy consumption

## Key Features

- Personal outlets, USB ports, and reading lights at every seat
- Wi-Fi
- Fully accessible café car
- Self-service food/beverage checkout

## Testing & Production

- Certification underway
- Fleet production ongoing in Hornell, NY

## Initial Revenue Service

- 2024 (expected)



# New *Acela* - Avelia Liberty

**In Service:  
2024?**

**Speed: 256  
kmh**



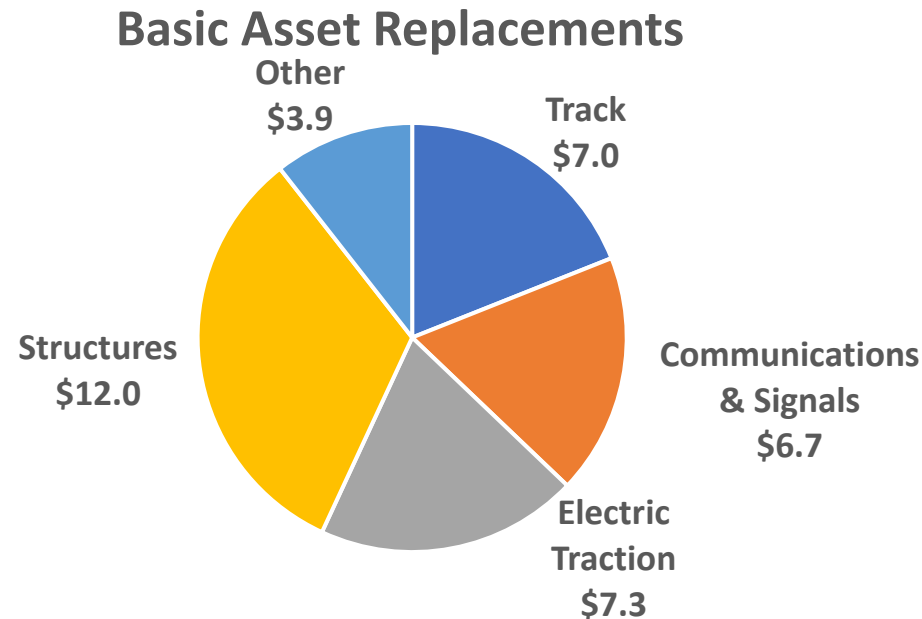
# Facility and Station Improvements

Service Launch	Expanded Operating Schedule	Improved Customer Experience	More Robust Worker Safety
<p data-bbox="448 511 772 551"><b>S&amp;I Facility Retrofits</b></p> <div data-bbox="448 575 772 665">Southampton</div> <div data-bbox="448 684 772 773">Sunnyside</div> <div data-bbox="448 792 772 882">Ivy City</div> <p data-bbox="555 925 665 965"><b>Safety</b></p> <div data-bbox="448 986 772 1076">Adjacent Track Improvements<sup>1</sup></div> <div data-bbox="448 1095 772 1185">ROW Fencing<sup>1</sup></div> <div data-bbox="448 1203 772 1293">Positive Train Stop Override (PTSO)</div>	<p data-bbox="835 511 1174 594"><b>Yard Track Expansion and Platforms</b></p> <div data-bbox="848 622 1166 712">Sunnyside</div> <div data-bbox="848 731 1166 821">Ivy City</div> <p data-bbox="886 882 1136 965"><b>MD Station &amp; Track Upgrades</b></p> <div data-bbox="848 986 1166 1076">Baltimore</div> <div data-bbox="848 1095 1166 1185">New Carrollton</div> <div data-bbox="848 1203 1166 1293">Track 1 Hanson to Bridge</div>	<div data-bbox="1225 586 1544 676">Ride Quality</div>	<div data-bbox="1592 586 1911 676">MOW Equip. Limits &amp; Collision Avoidance</div>

1. Required to operate at higher speeds

# State of Good Repair Backlog

- Aging infrastructure requires significant financial resources and limits near-term performance
- SOGR backlog needs over the next 15 years include:\*
  - \$42 billion for 16 major backlog projects (primarily bridges & tunnels)
  - \$37 billion for basic asset replacements:





# Amtrak Readiness for New *Acela*

## REVENUE SERVICE LAUNCH

