

# **Publicly-Supplied Hopper Cars and the Canadian Grain Handling and Transportation System**

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# Presentation Outline

- Introduction
- Government Acquisition
- Government Movement Towards Divestiture
- Illustration of Transition (underlying data set)
- Current Composition
- Strategic Considerations

# Introduction

- Western Canada's Grain Handling and Transportation System (GHTS) is a complex and multi-actor supply chain.
- Transports the output of western farmers to domestic and international markets – five year average production of 60,075,000 tonnes.
- Underpinned by fleet of approximately 22,000 hopper cars, gathering and transporting grain over 17,000 route miles from 370 primary and processing elevators.
- Hopper car fleet is amalgam of ownerships, and a mix of equipment age, physical size and carrying capacity.

# Government Acquisition

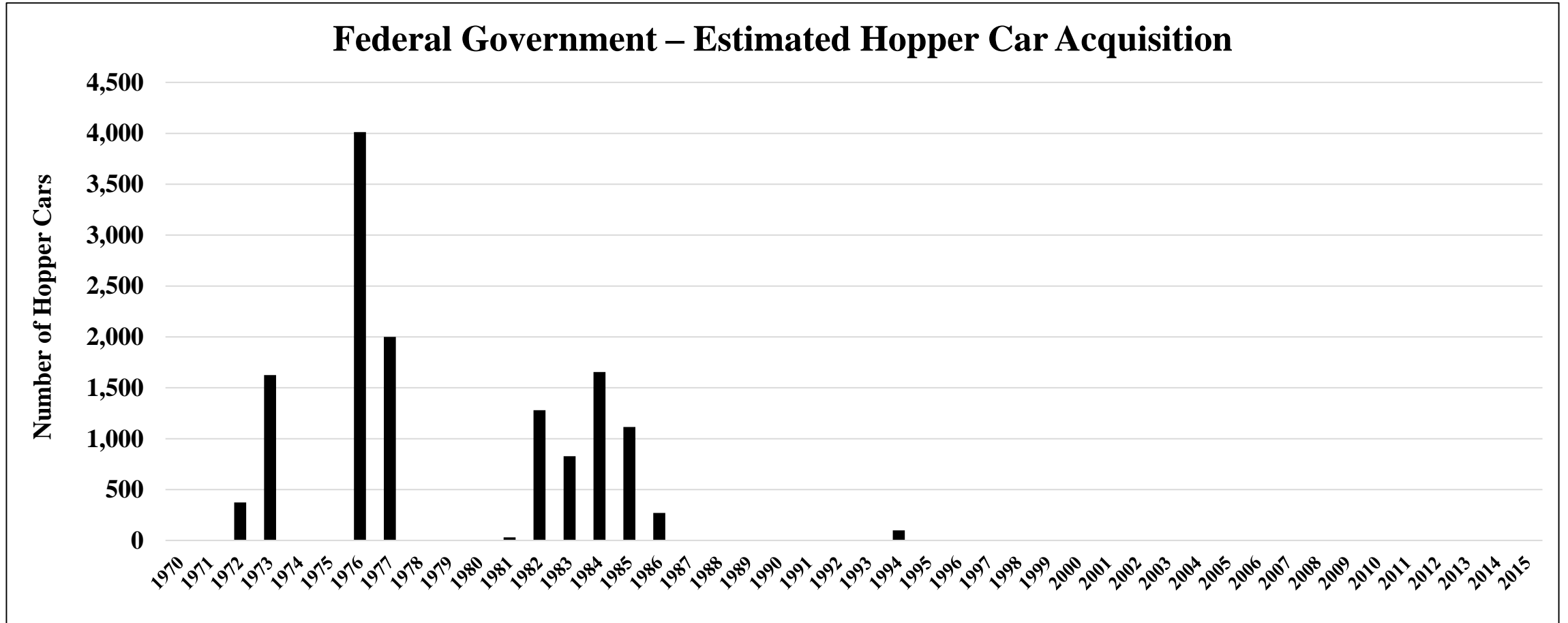
- Influencing policy / economic context in 1960-70s.
  - Need to transition from boxcar to new technology
- Federal government first purchase of 2,000 in 1972.
- Over next 20 years, federal fleet grew to approx. 13,500.
- Supplemented by further 6,000 publicly-supplied:
  - CWB: 4,000
  - Alberta: 1,000
  - Saskatchewan: 1,000
- Government and publicly-supplied cars apportioned between CN and CP.

# Government Movement Towards Divestiture

- Public policy gradually shifted towards deregulation.
- Hopper cars stood on periphery of broader reforms.
- March 1996 Budget signalled intention to divest and sparked debate as to ownership.
- October 12, 2007 – announcement of Operating Agreements with CN and CP.
- Advances in hopper car design since 1970's:
  - Construction: design and material
  - Capacity: 4,550 ft<sup>3</sup> → 5,150 ft<sup>3</sup>
  - Max. Gross Weight: 263,000 lbs. → 286,000 lbs.

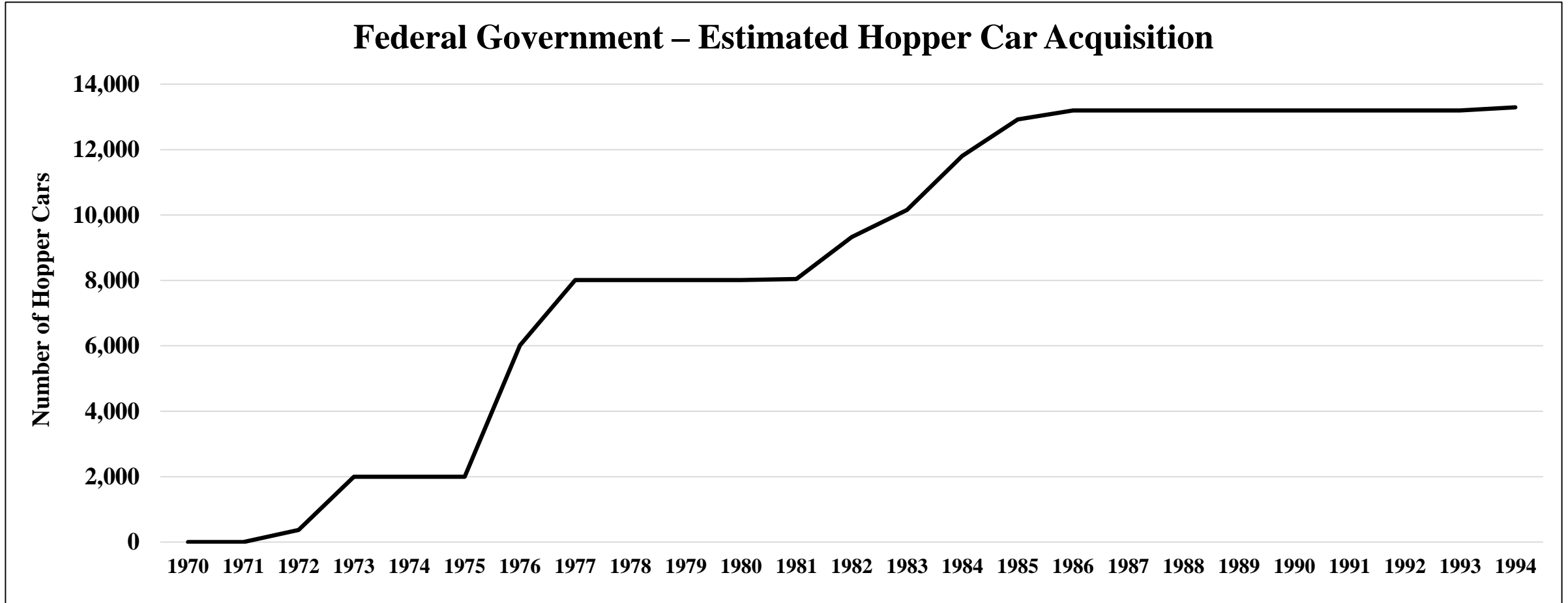
<b>Major Elements of Government Hopper Car Operating Agreements with CN and CP</b>	
<b>Duration</b>	<ul style="list-style-type: none"> <li>• Ten years with one year notice of termination in eighth year, for no more than 3,000 cars.</li> <li>• If not terminated, agreement remains evergreen.</li> </ul>
<b>Use of Cars</b>	<ul style="list-style-type: none"> <li>• Can be used to carry grain in North America.</li> <li>• Can be used for other commodities if precautions are taken to protect physical integrity.</li> </ul>
<b>Payment for Use</b>	<ul style="list-style-type: none"> <li>• Cars are provided to railways at no cost for regulated grain movements.</li> <li>• Alternate-use payments for non-regulated movements.</li> </ul>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>• Railways are responsible to maintain cars to federal government safety standards and industry operating standards.</li> <li>• Government will conduct inspections every second year to ensure cars meet these standards.</li> <li>• Railways are responsible for maintenance costs.</li> </ul>
<b>Refurbishment</b>	<ul style="list-style-type: none"> <li>• All steel cars built after 1974 will be inspected during the first 5 years of the agreement to identify refurbishment requirements.</li> <li>• Cars will be refurbished to industry standards at railways' expense.</li> <li>• Refurbishment includes replacing defective gates that results in grain leakage and installing safety reflectors on every car.</li> <li>• The government will conduct post-refurbishment inspections to ensure needed work has been completed.</li> </ul>
<b>Replacement</b>	<ul style="list-style-type: none"> <li>• Railways are responsible for replacing cars that are retired or destroyed, obligations under the CTA.</li> </ul>
<b>Operating Reports</b>	<ul style="list-style-type: none"> <li>• Monthly reporting on car use.</li> <li>• Monthly reporting on destroyed cars and repairs.</li> </ul>
<b>Public Annual Reports</b>	<ul style="list-style-type: none"> <li>• Summarize information in monthly operating reports.</li> <li>• Report on change in railways' grain fleets – retirements, destroyed cars and additions.</li> <li>• Summarize results of refurbishment and maintenance inspections.</li> <li>• Summarize information on revenues received from the railways.</li> </ul>

# Government Acquisition



Source: Quorum Corporation

# Government Acquisition

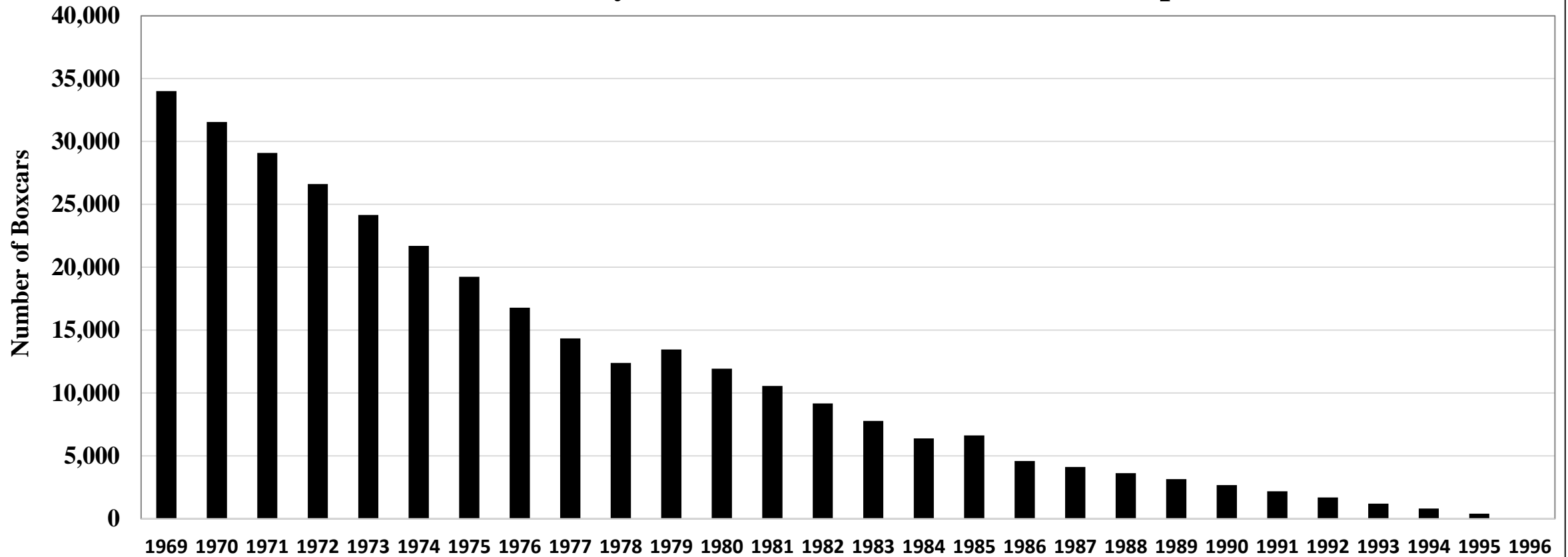


Source: Quorum Corporation

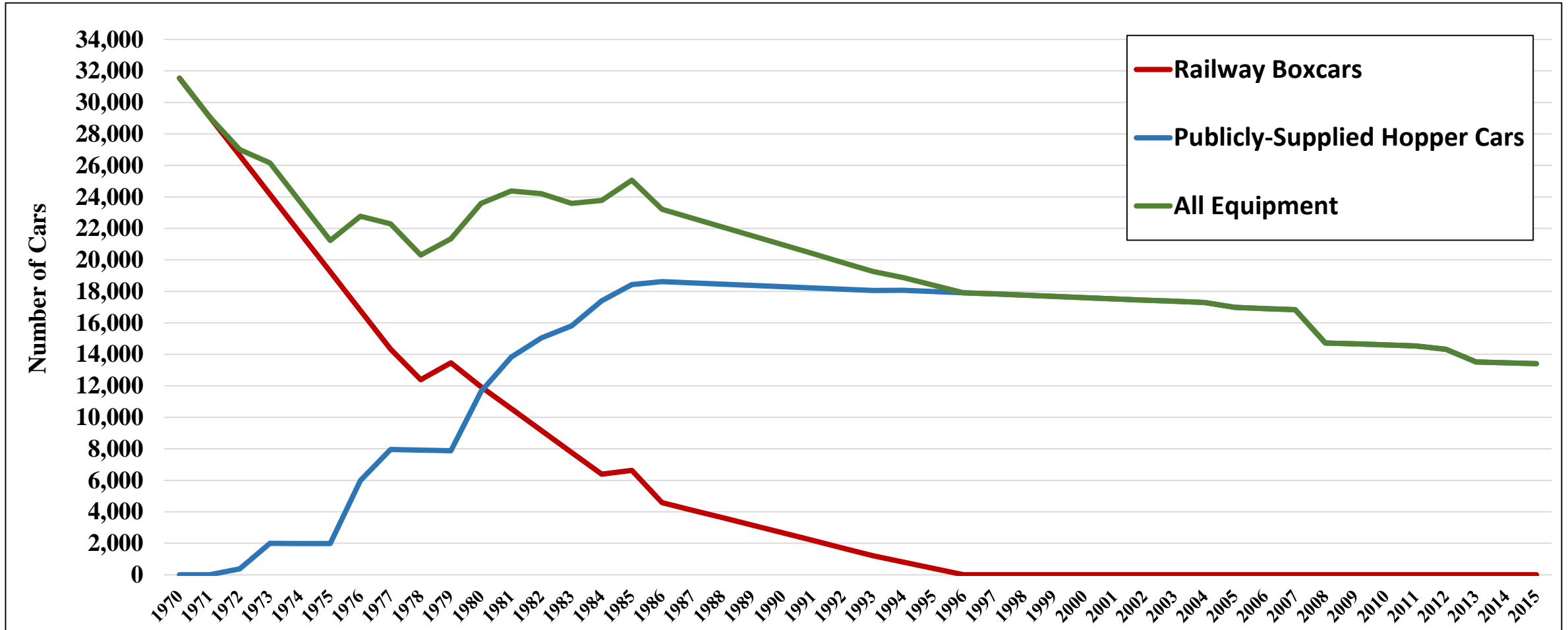


# Estimated Retirement of Railway Boxcar

Estimate of Railway Boxcar Fleet used for Grain Transport

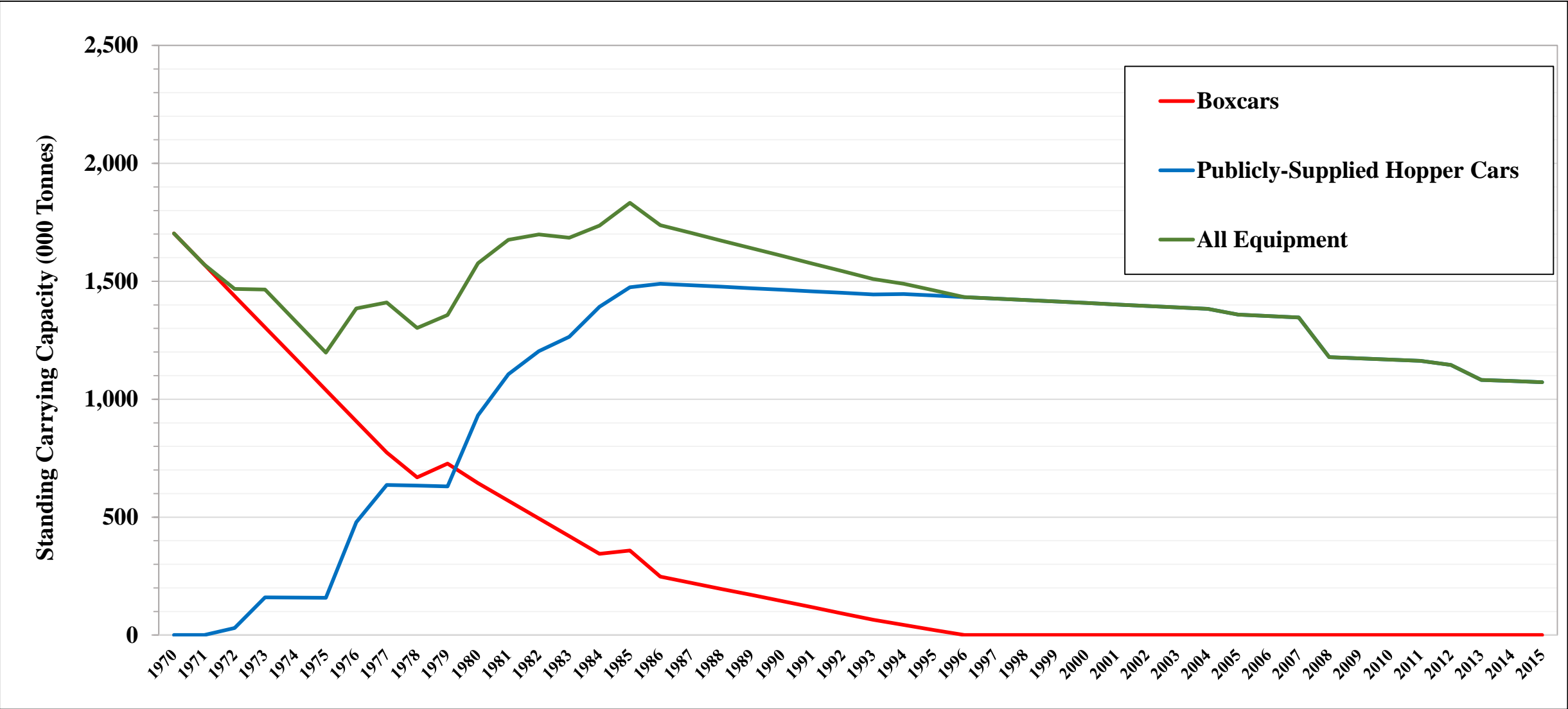


# Estimated Transition: Boxcar to Hopper Car



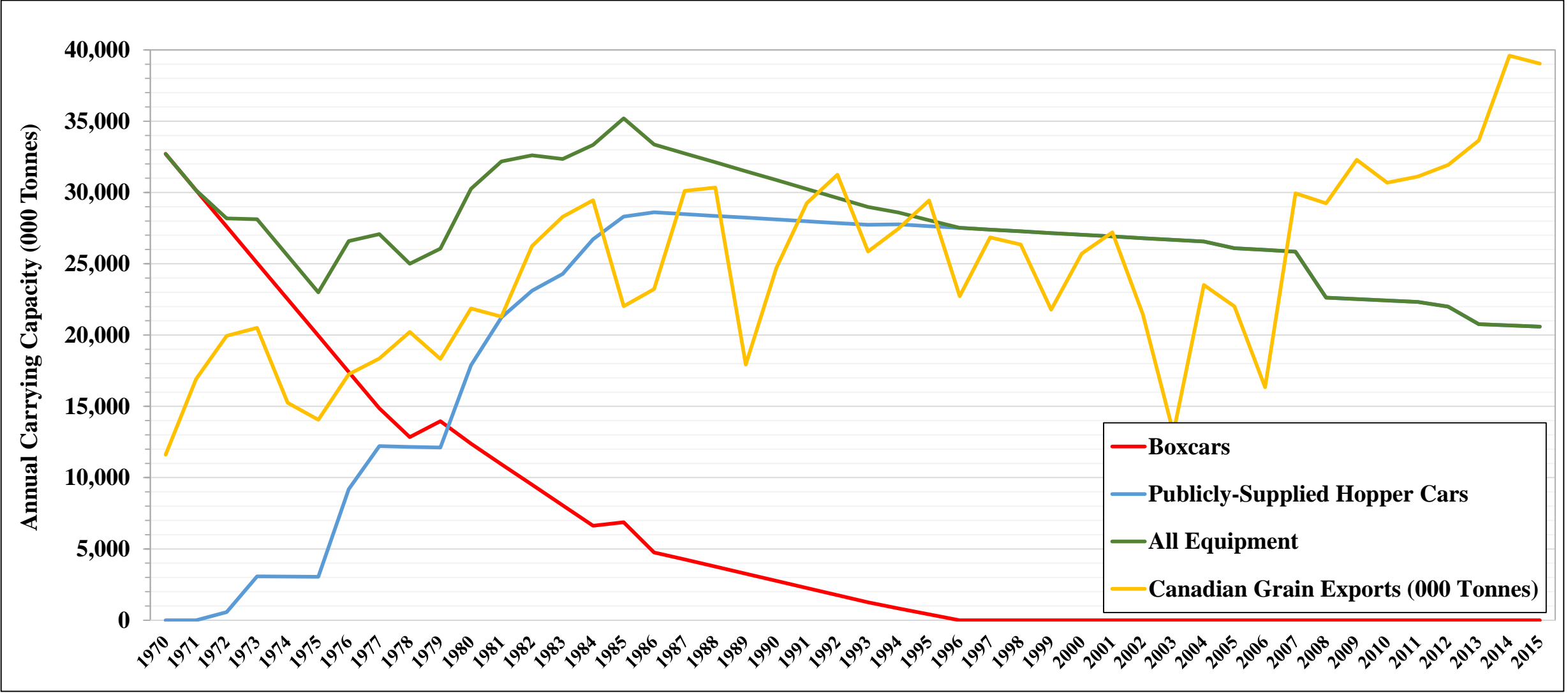
Source: Quorum Corporation

# Estimated Transition: Standing Capacity



Source: Quorum Corporation

# Estimated Transition: Implications on Capacity



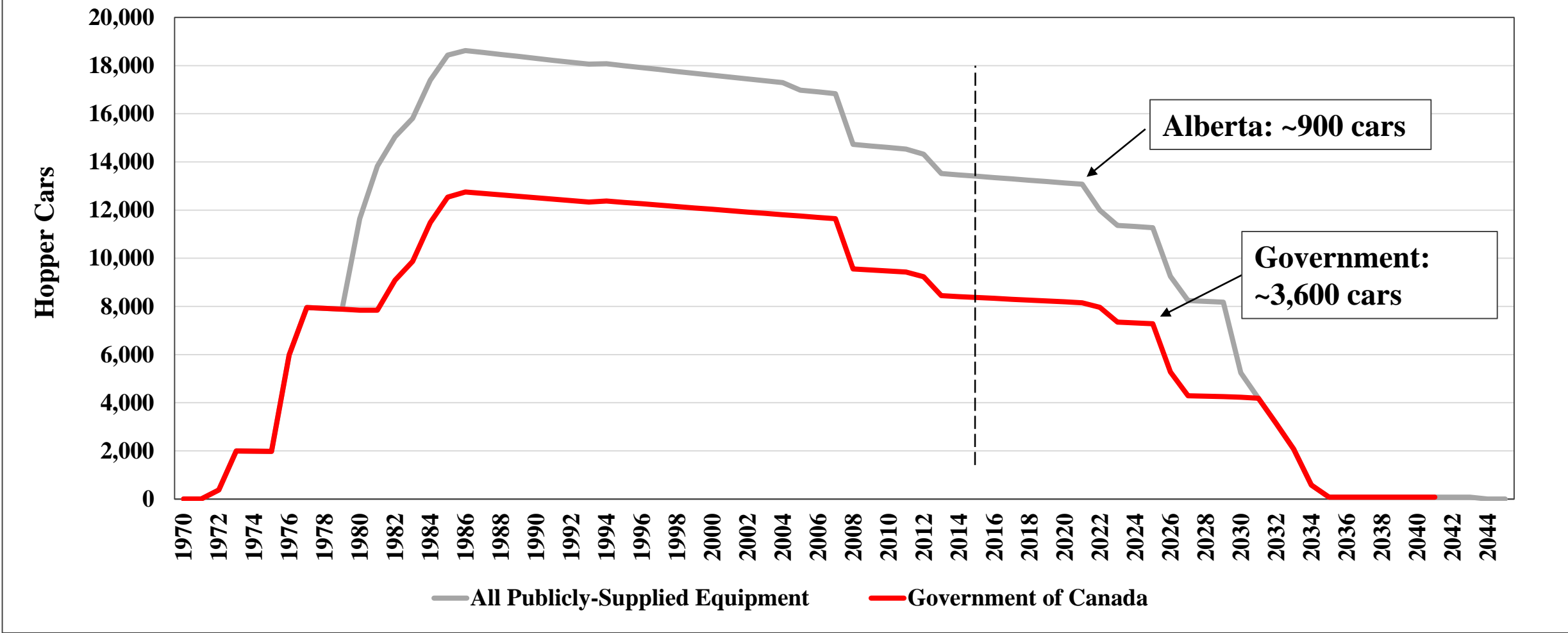
Source: Quorum Corporation

# Current Composition

- End of 2015:
  - Approx. 22,400 hopper cars in circulation (variable by month: on-line fleet, storage and bad order)
  - Estimated:
    - 8,400 federal
    - 3,100 publicly-supplied
  - Inference: 10,900 both railway and shipper supplied
- Shift: from government-supplied to railway / shipper supplied.

# Strategic Considerations: Estimated Attrition

## Estimate of Government and Publicly-Supplied Hopper Cars in Service



# Strategic Considerations

- Longer-term relationship between increasing production trend and carrying capacity.
- Impact of advancement in cars and turnaround times: increased productivity
  - Capacity of cars has increased
  - GHTS avg. car cycle has declined: 1990-2000: 19.9 days → 2014-15: 13.8 days
- Inference: approximately 75% of the rolling stock required to move a given amount of grain 15 years ago is required today.
- Role of Maximum Revenue Entitlement.
- Retirement of publicly-supplied fleet and plan for future replacement.