

# North American Railcar Fleet Update

David Humphrey, Ph.D.  
Senior Data Scientist

---

# Railinc Insights Enhance Rail Operations



Railinc data + advanced data science = unmatched freight rail insights.

## Asset & Fleet Management

Lease insights, maintenance planning, and trend analysis

## Near-Real Time Visibility

Near-real time visibility, alerting and more

## Railcar Repair Billing

End to end railcar repair support & auditing

## Custom Fleet Reporting

Mileage, tax, fleet composition, location snapshot reports and more

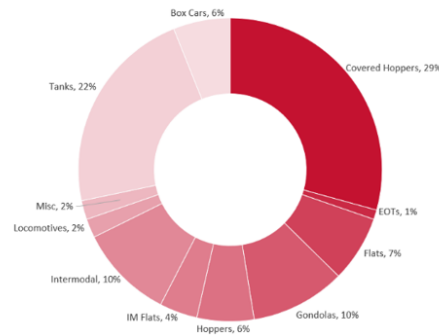
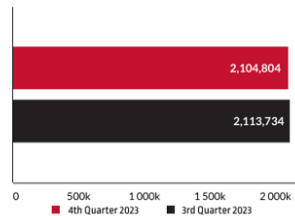
# The Umler Equipment Index



## Railinc Umler Equipment Index

### TOTALEQUIPMENT

Through 4th Quarter 2023



The Umler Equipment Index provides **quarterly analysis** of the total makeup of the North American rail equipment fleet.

Data in the index represents all equipment units on file in Railinc's Umler system.

You can find the latest Umler Index at <https://public.railinc.com/about-railinc/blog>.

***Access to all Railinc data is subject to Railinc's strict data access policy and confidentiality protocols.***

# Changes During 2023

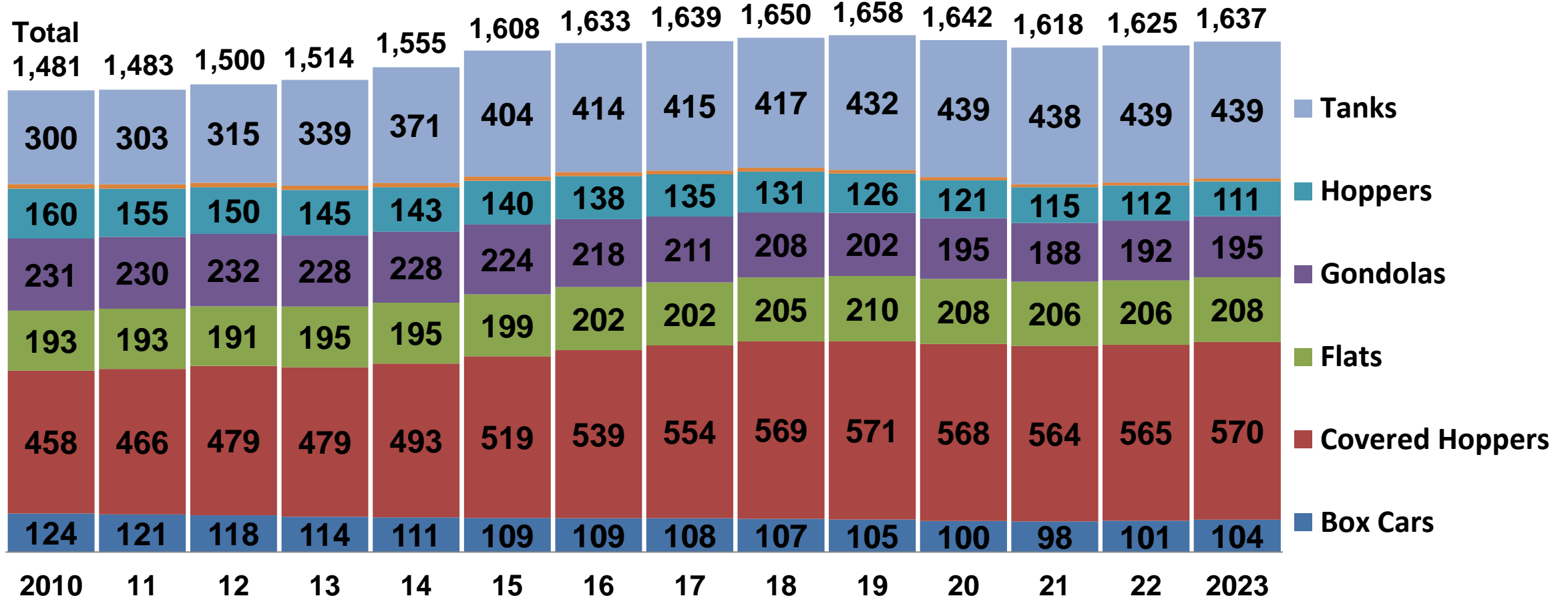


- **Fleet Dynamics from EOY 2022 to EOY 2023**

- Analysis on revenue-earning fleet
- Total fleet size up approximately 12K cars
- Increases:
  - Box Cars up 3 percent or about 3K again
  - Covered Hoppers up nearly 6K
  - Gondolas (Mill Gons, Coil Gons) up about 4K
- Decreases:
  - Gondolas, Hoppers (Coal fleet) down 4K

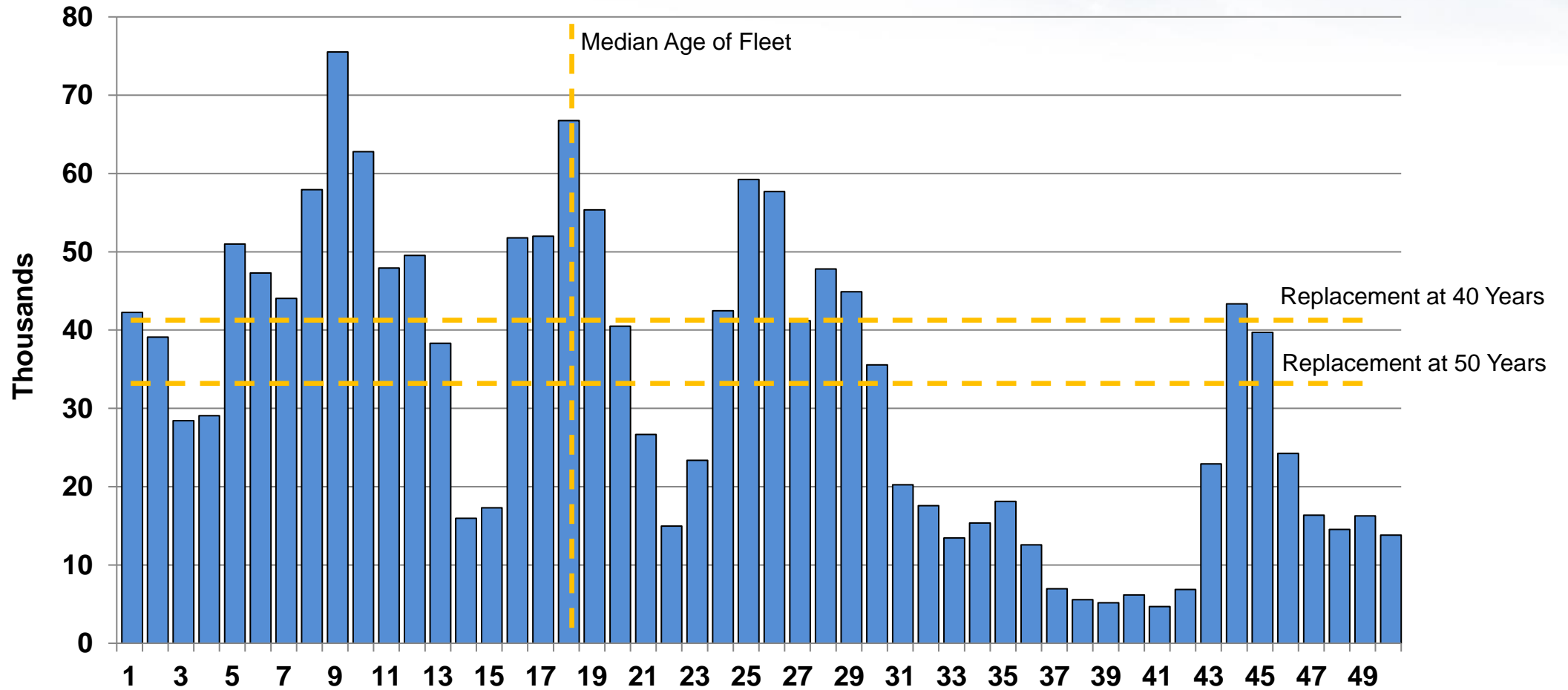
# North American Freight Car Fleet by Group

Total Count at Year-End, in Thousands



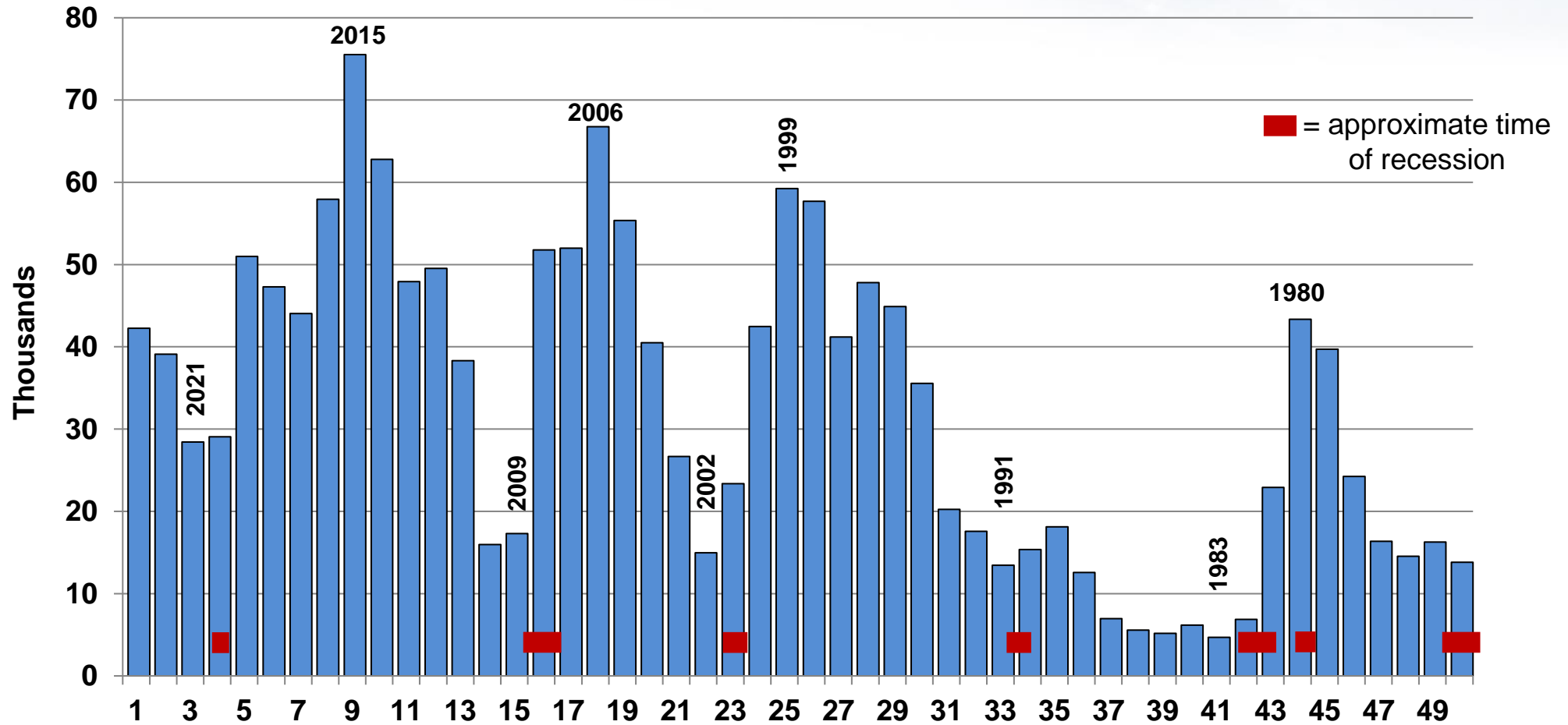
# North American Freight Car Fleet

## Number of Cars by Age (Revenue-Earning Fleet)



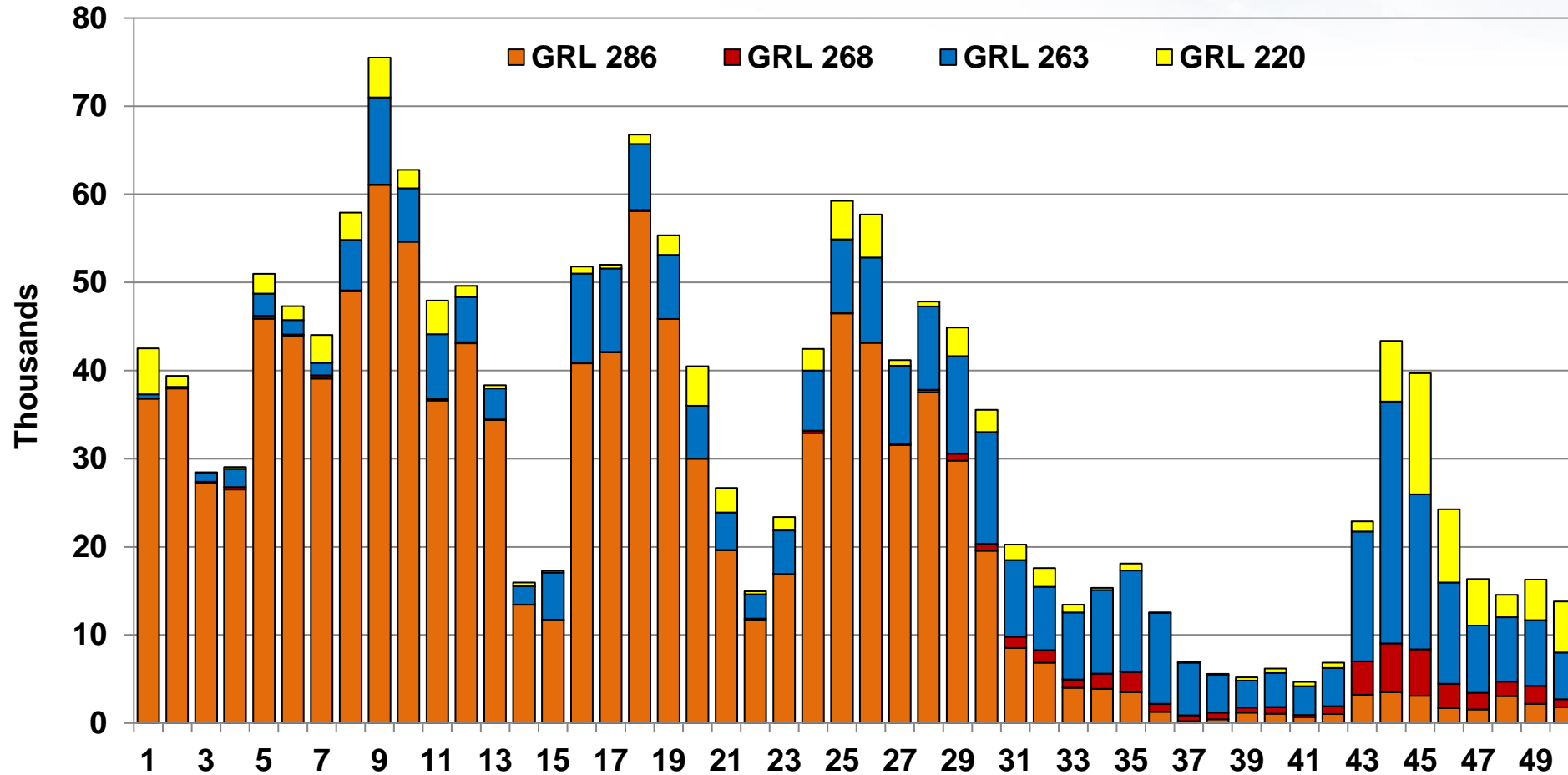
# North American Freight Car Fleet

## Number of Cars by Age (Revenue-Earning Fleet)



# North American Freight Car Fleet

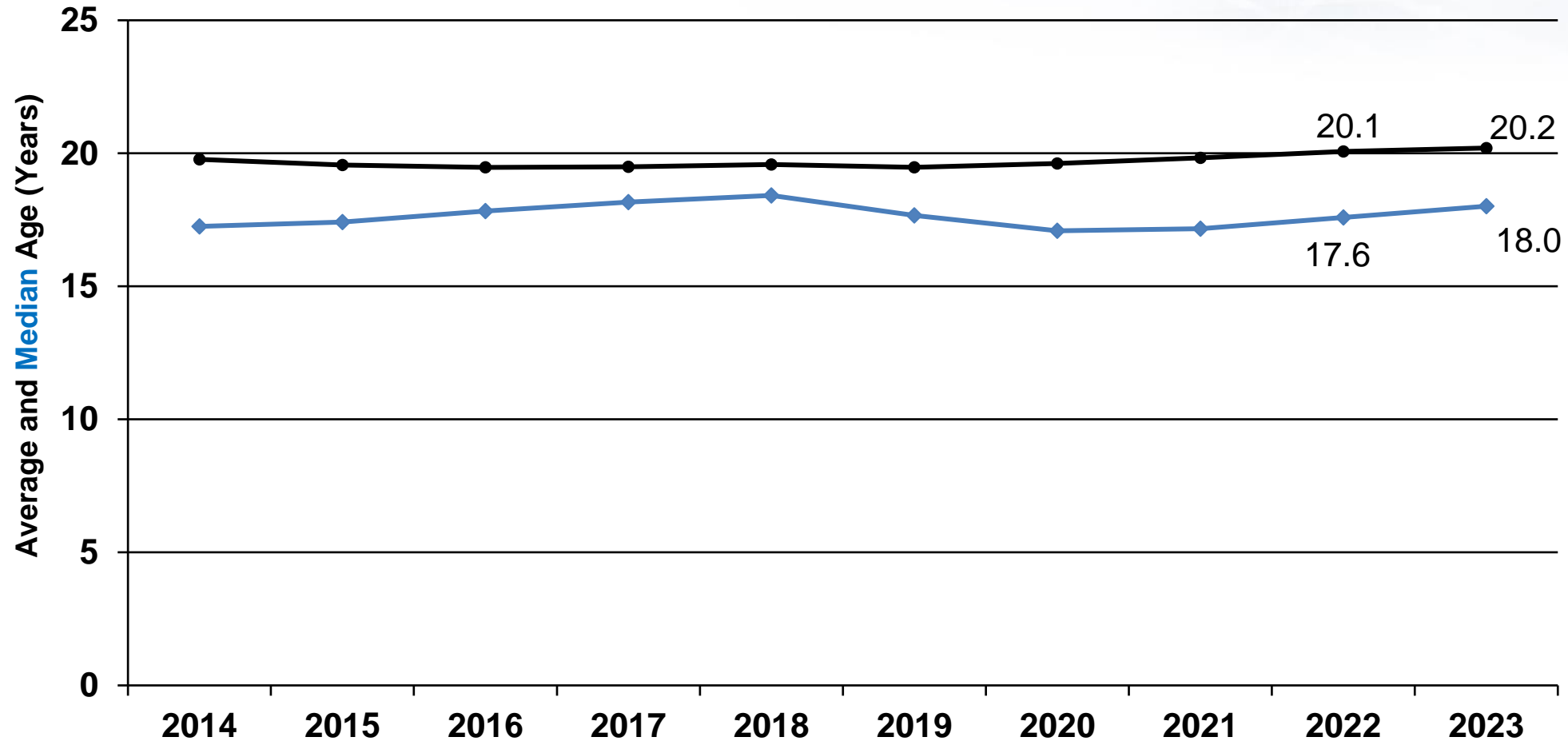
Number of Cars by Age and GRL (Gross Rail Load)





# North American Freight Car Fleet

Average and Median Age at Year-End (Revenue-Earning Fleet)



# North American Freight Car Fleet

## Top 11 ETCs in Revenue-Earning Fleet



Rank	Change	ETC	Count	Description
1		C114	178K	Covered Hopper: Grain/Fertilizer
2		C214	147K	Covered Hopper: Plastics
3		C112	102K	Covered Hopper: Sand/Cement
4		C113	88K	Covered Hopper: Grain/Fertilizer
5	↑ 1	T178	80K	Tank: Non-Pressurized, General Service
6	↓ 1	J311	77K	Gondola: Coal
7		T389	53K	Tank: Pressurized
8	↑ 1	T106	48K	Tank: Non-Pressurized, General Service
9	↓ 1	T108	45K	Tank: Non-Pressurized, General Service
10		T107	43K	Tank: Non-Pressurized, General Service
11		A606	40K	Box Car: 59' to 79', Cushion Underframe

### Highlights:

11 ETCs now represent 55 percent of the revenue-earning fleet

Approx. 700 ETCs are present

C114s replacing C113s

T178: 0 at EOY '14

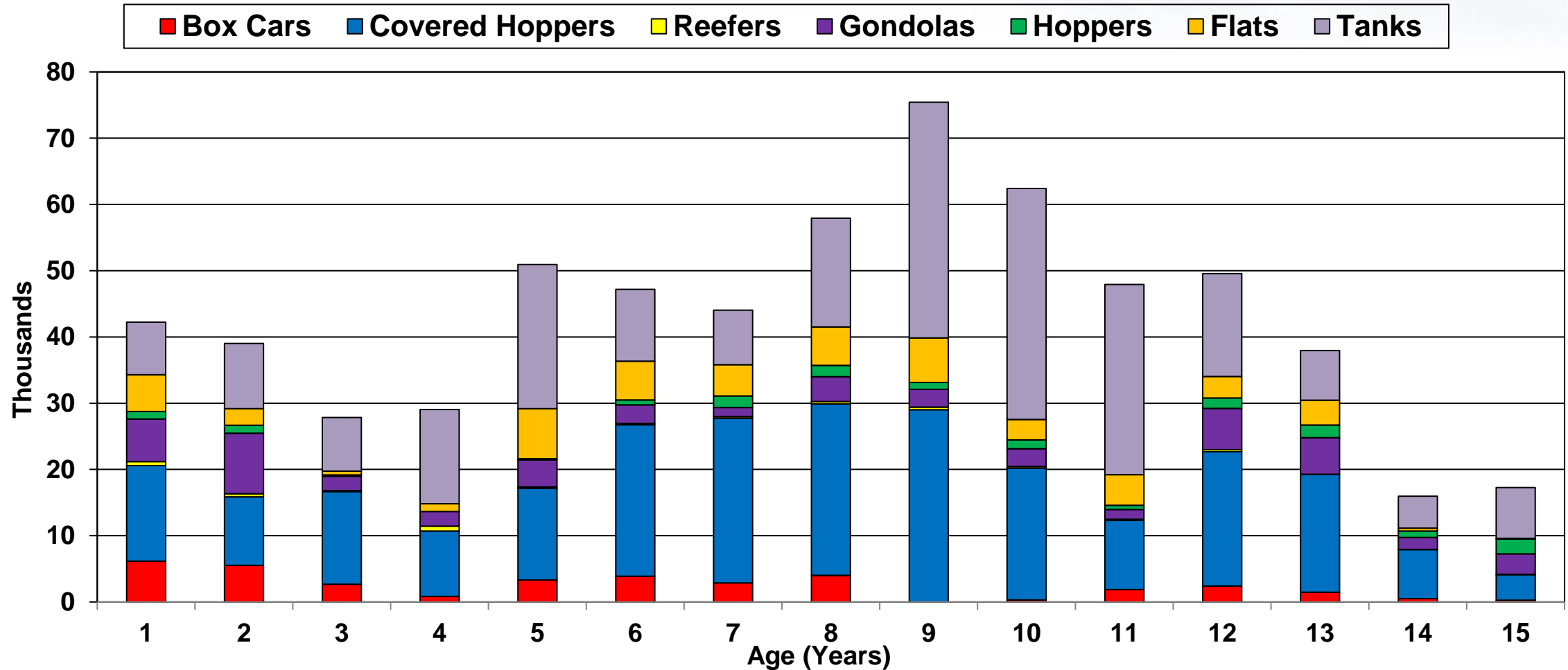
J311: 3<sup>rd</sup> place, 105K cars in '15

A606: 15<sup>th</sup> place, 30K cars in '21

S635: 84K wells

# North American Freight Car Fleet

## Cars by Age and Type



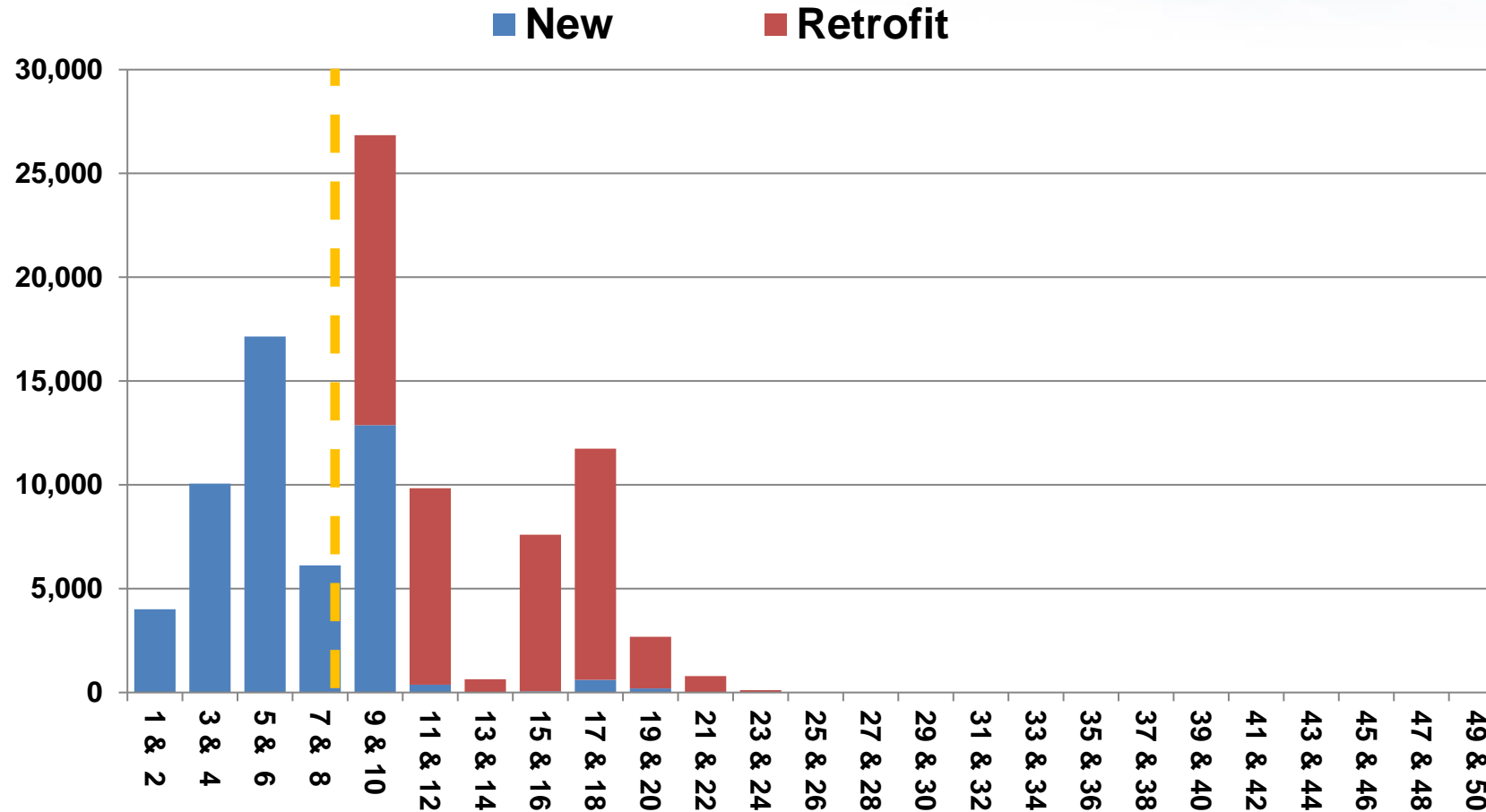
# North American Railcar Review



- **Age Demographics**
- **GRL values of 286K and less than 286K**
- **Detailed Fleet Overview**
  - Tank: DOT 117
  - Tank: CPC 1232
  - Tank: DOT 111
  - Tank: Pressure
  - Grain/Fertilizer
  - Plastics
  - Sand/Cement
  - Pressure Differential
  - Coal
  - Mill Gondolas
  - Coil Gondolas
  - Aggregate
  - Box Cars

# Tank: Non-Pressure, DOT 117

## Age Distribution by New/Retrofit Status

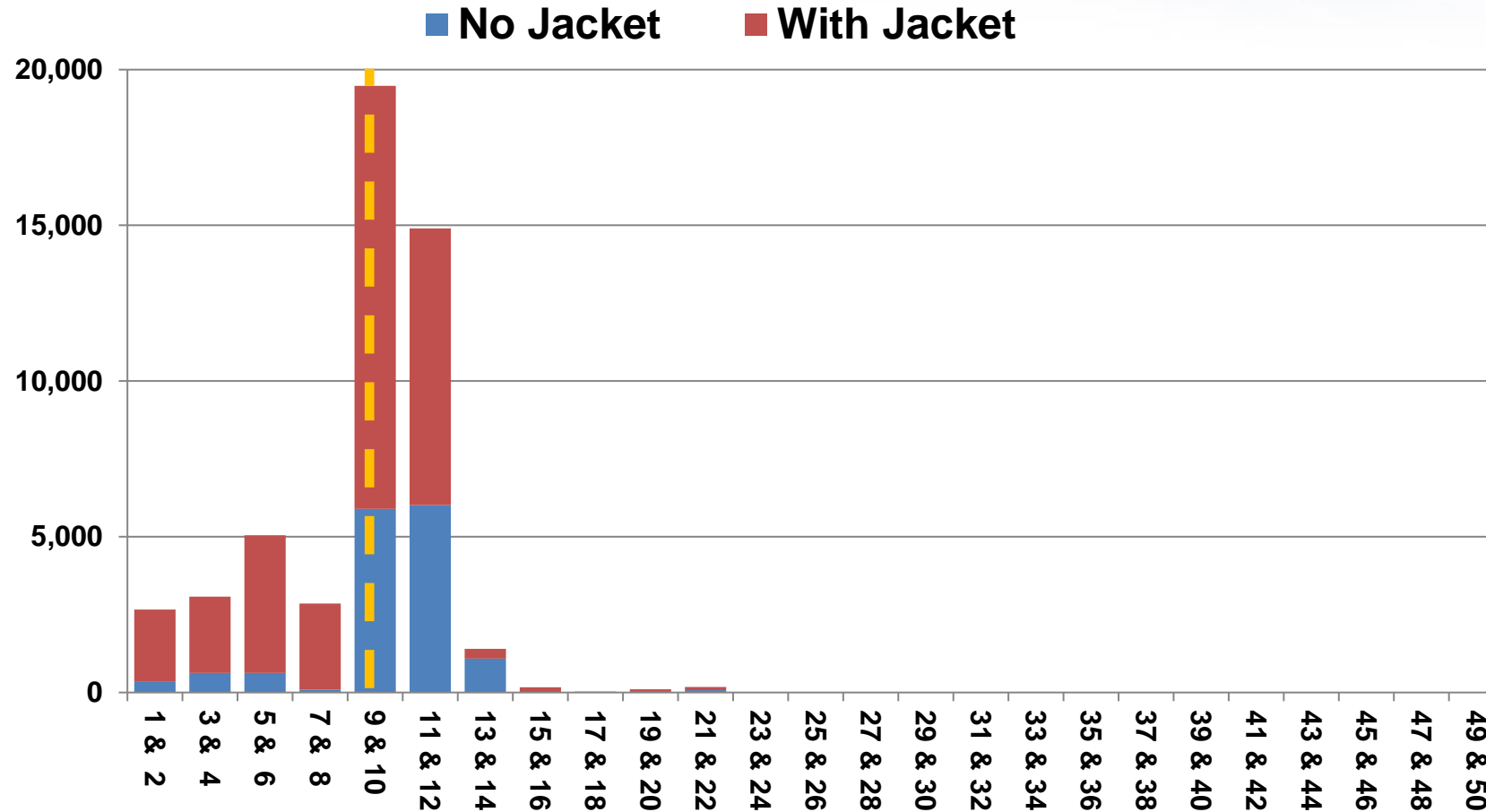


**Highlights:**

- 6 percent of fleet
- 98K cars
- T178, T177, T179
- All are GRL 286

# Tank: Non-Pressure, CPC 1232

## Age Distribution by Jacket Status

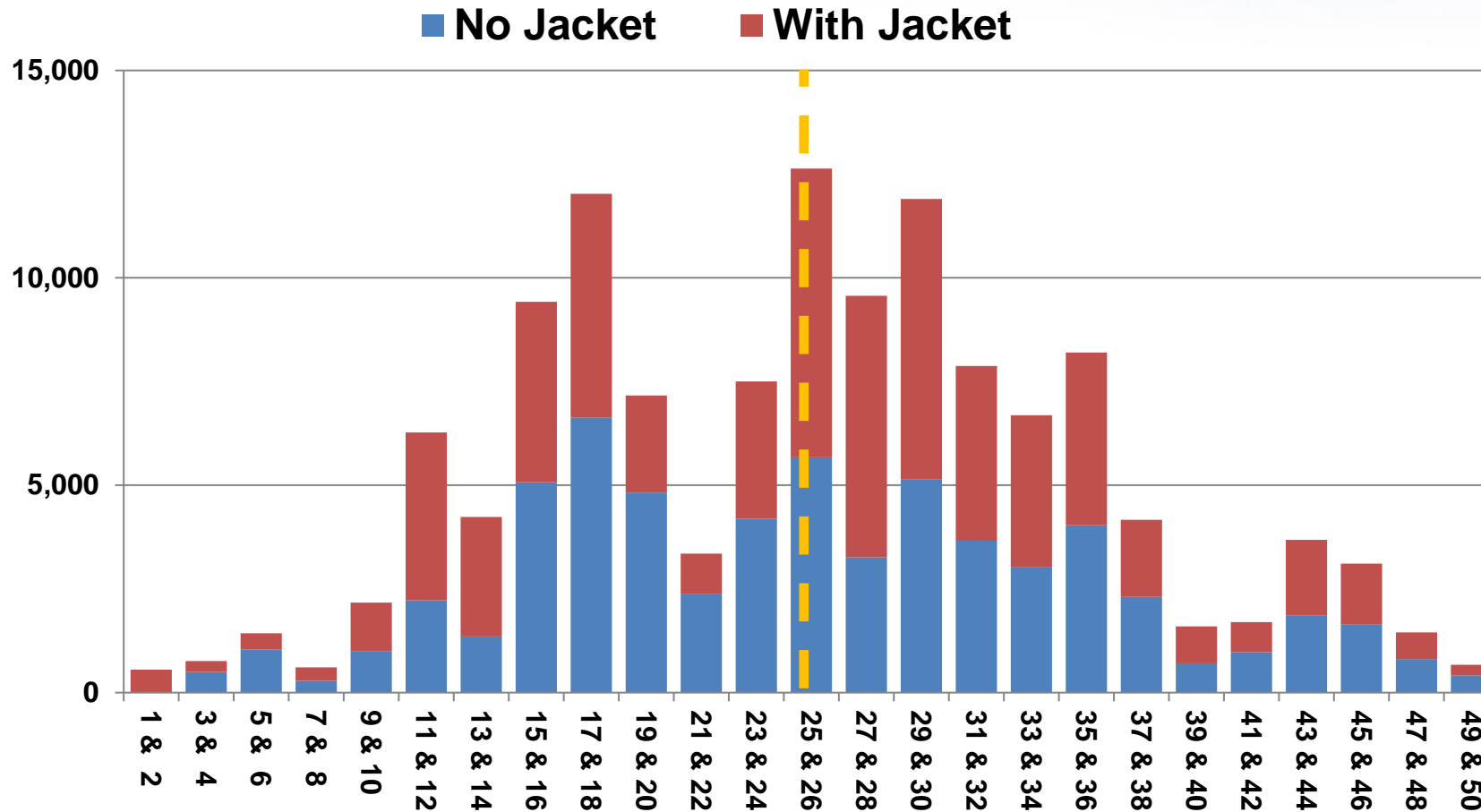


**Highlights:**

- 3 percent of fleet
- 50K cars
- T107, T109, T108, T106
- Nearly all are GRL 286

# Tank: Non-Pressure, DOT 111

## Age Distribution by Jacket Status

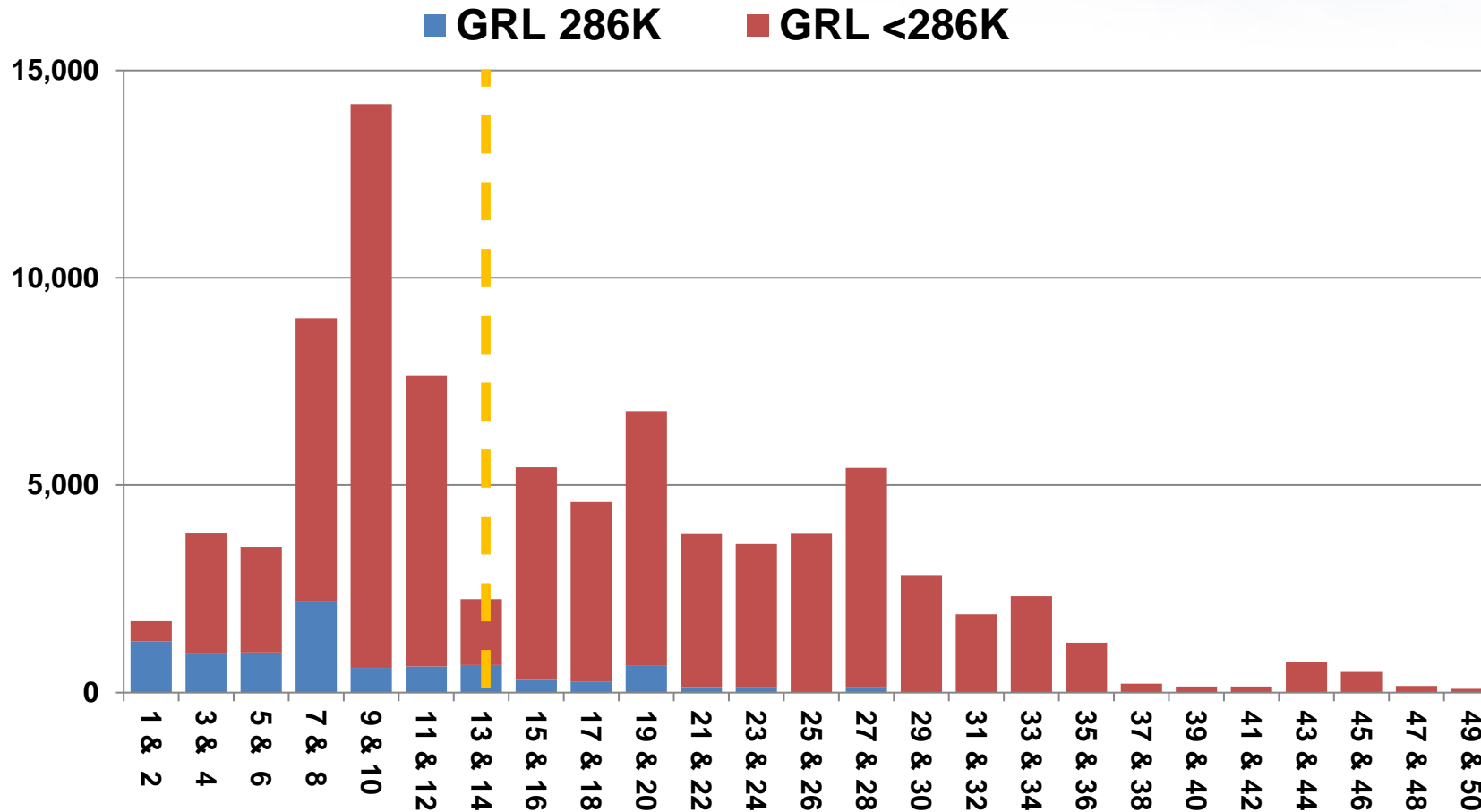


**Highlights:**

- 8 percent of fleet
- 129K cars
- T106, T104, T107, T108
- Nearly all are GRL 263

# Tank: Pressure

## Age Distribution by GRL



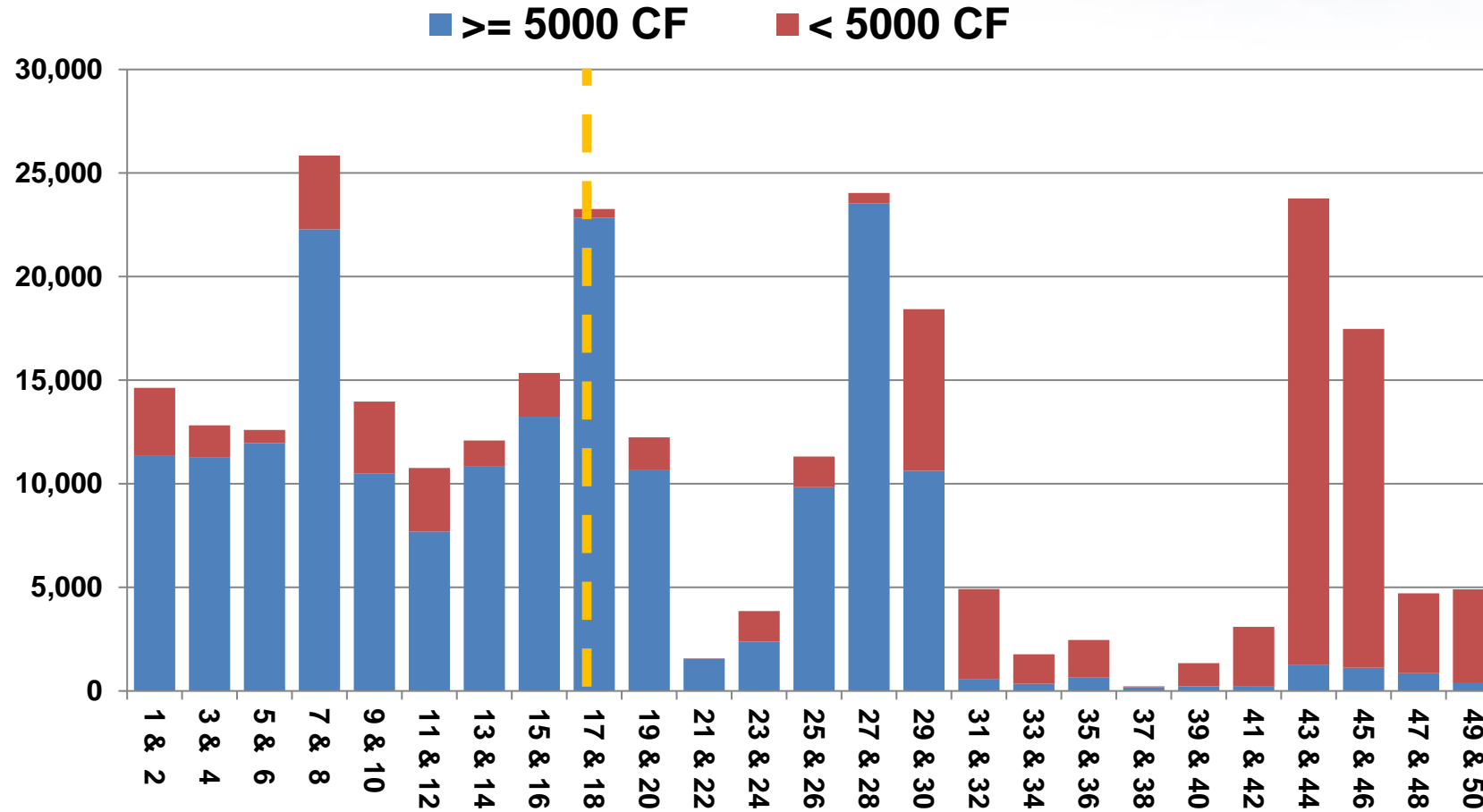
**Highlights:**

- 5 percent of fleet
- 86K cars
- T389, T419, T907, T929
- Nearly all are GRL 263



# Grain/Fertilizer

## Age Distribution by Capacity in Cubic Feet

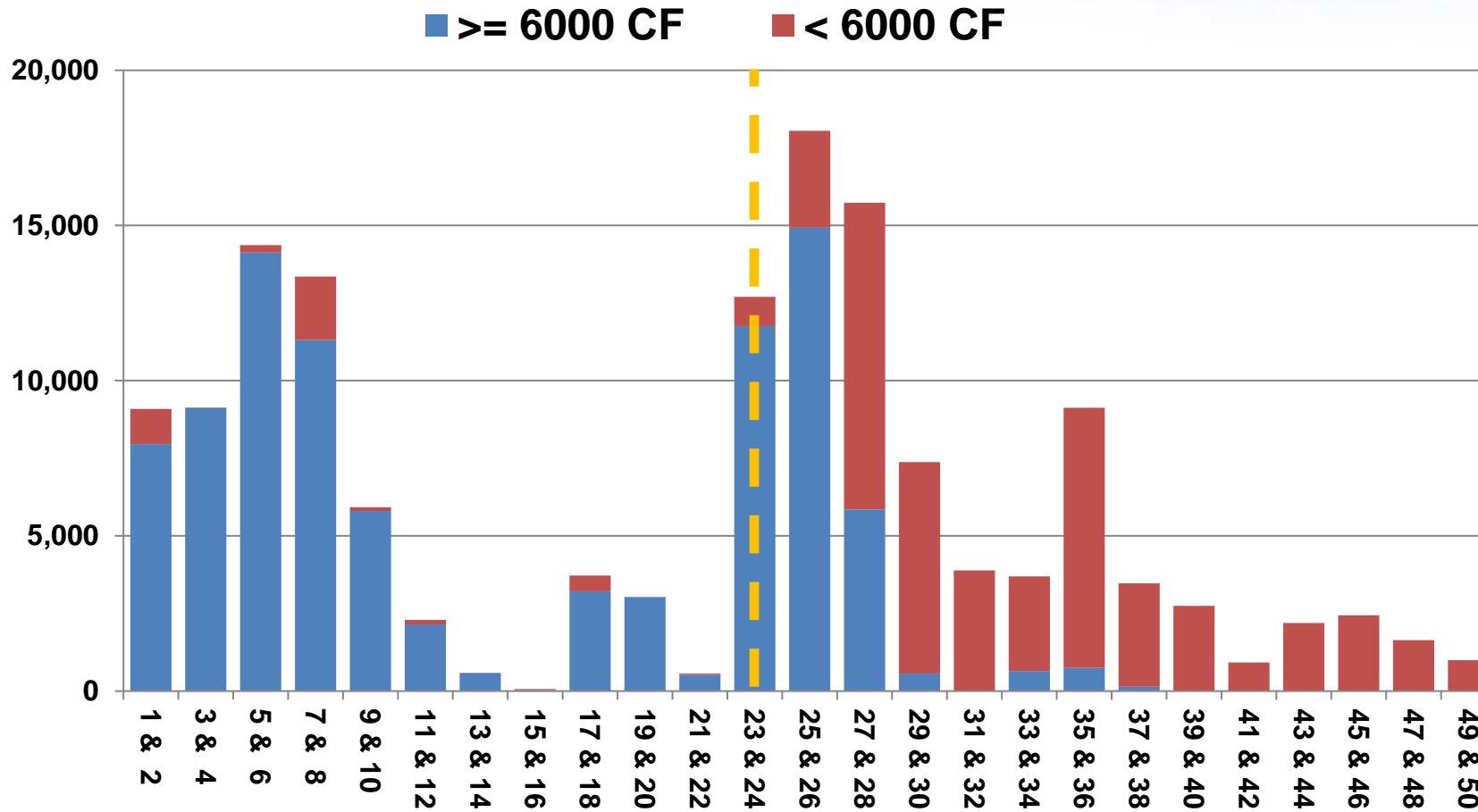


**Highlights:**

- 17 percent of fleet
- 277K cars
- C114, C113, C314, C313

# Plastics

## Age Distribution by Capacity in Cubic Feet

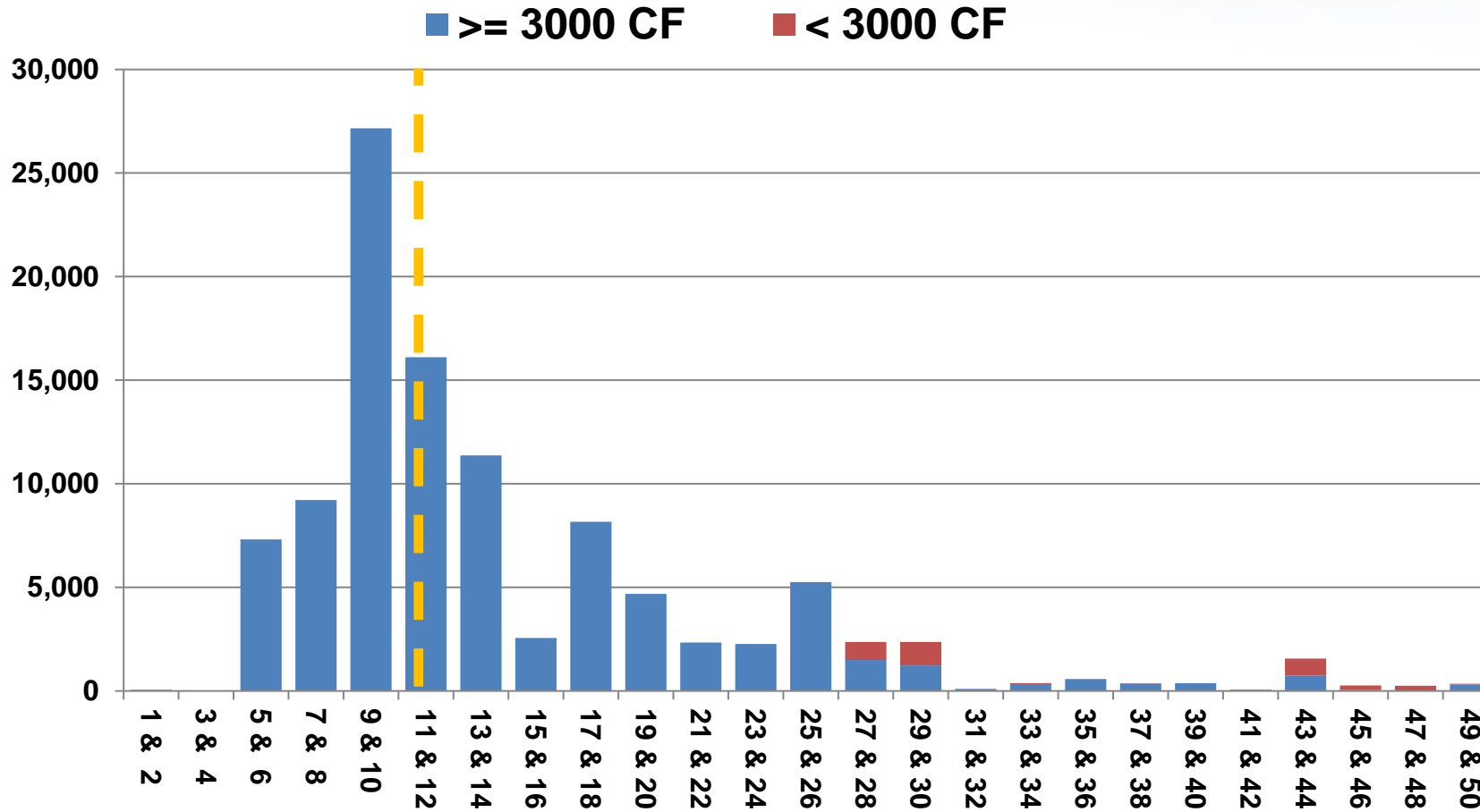


**Highlights:**

- 9 percent of fleet
- 147K cars
- C214

# Sand/Cement

## Age Distribution by Capacity in Cubic Feet

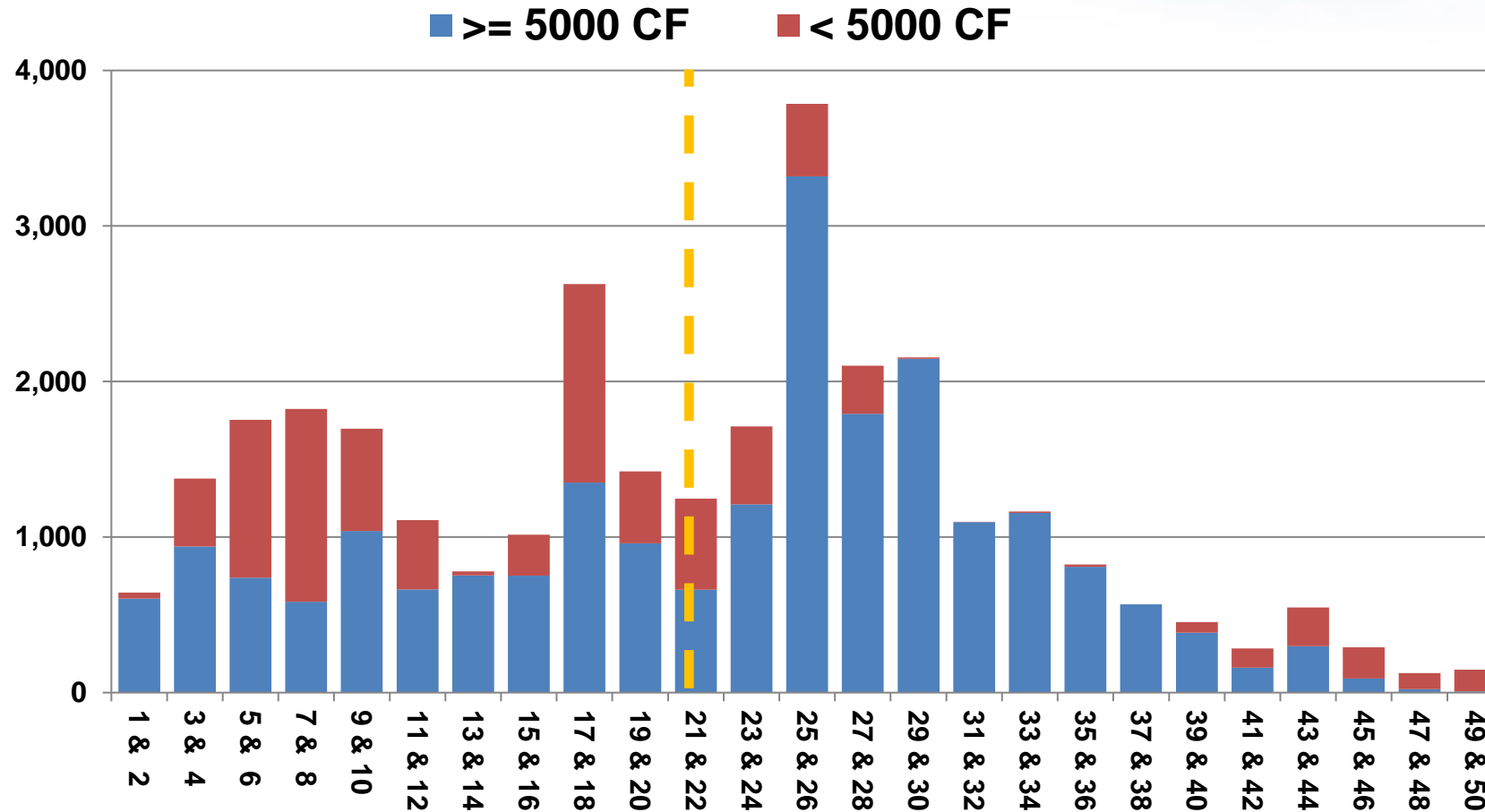


**Highlights:**

- 6 percent of fleet
- 106K cars
- C112, C111

# Pressure Differential

## Age Distribution by Capacity in Cubic Feet

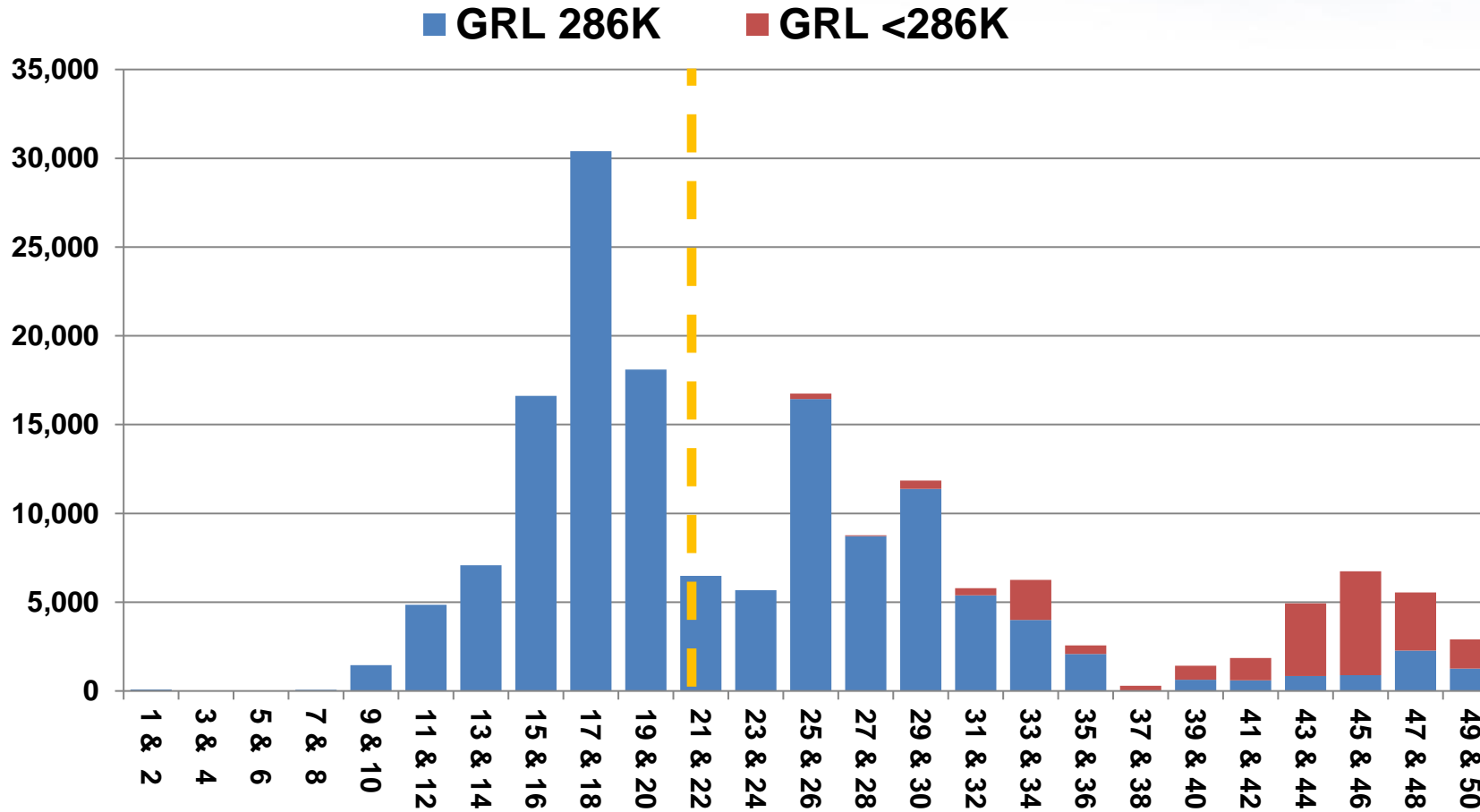


**Highlights:**

- 2 percent of fleet
- 31K cars
- C614, C612

# Coal

## Age Distribution by GRL

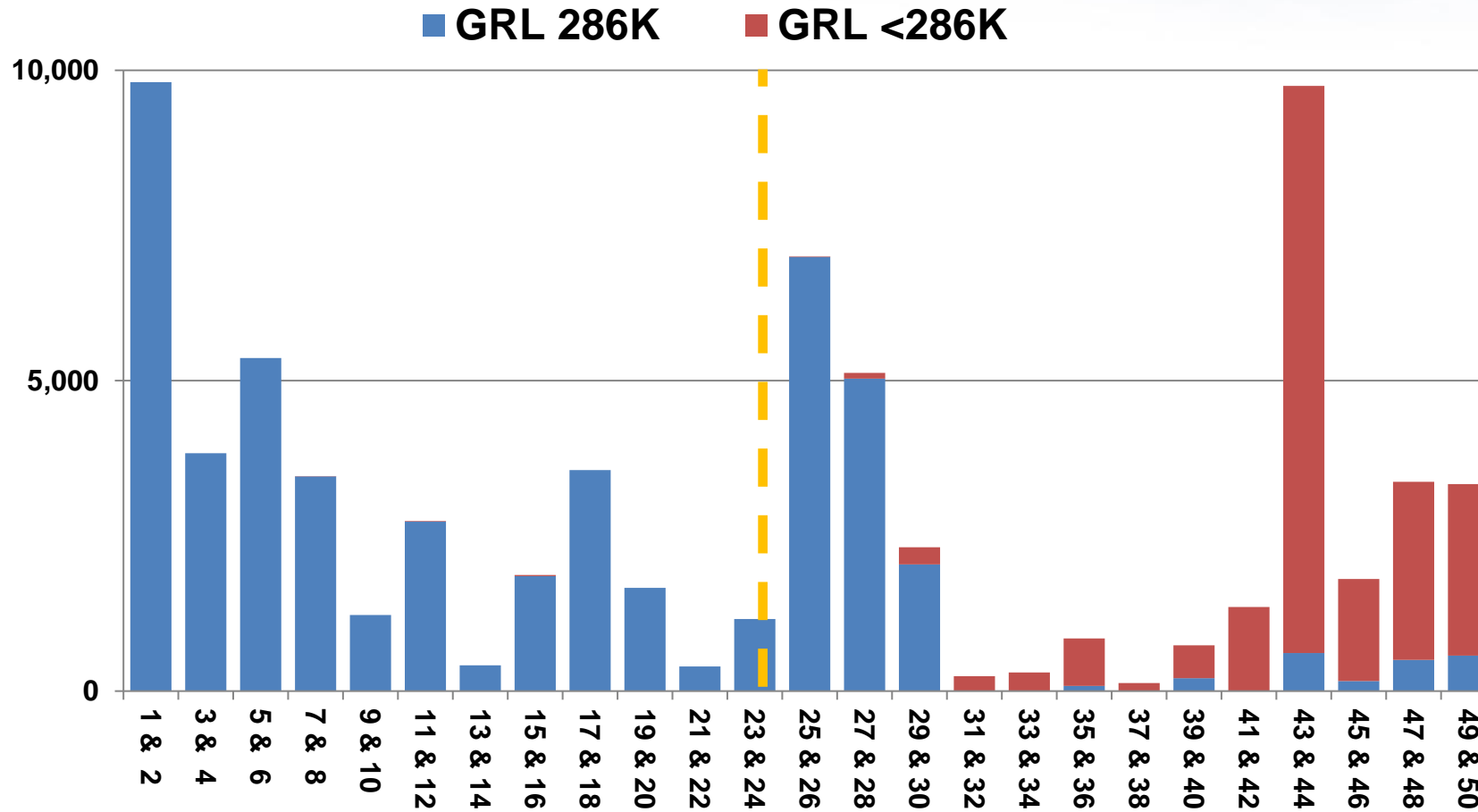


**Highlights:**

- 10 percent of fleet
- 166K cars
- J311, K341, K346, H351

# Mill Gondola

## Age Distribution by GRL

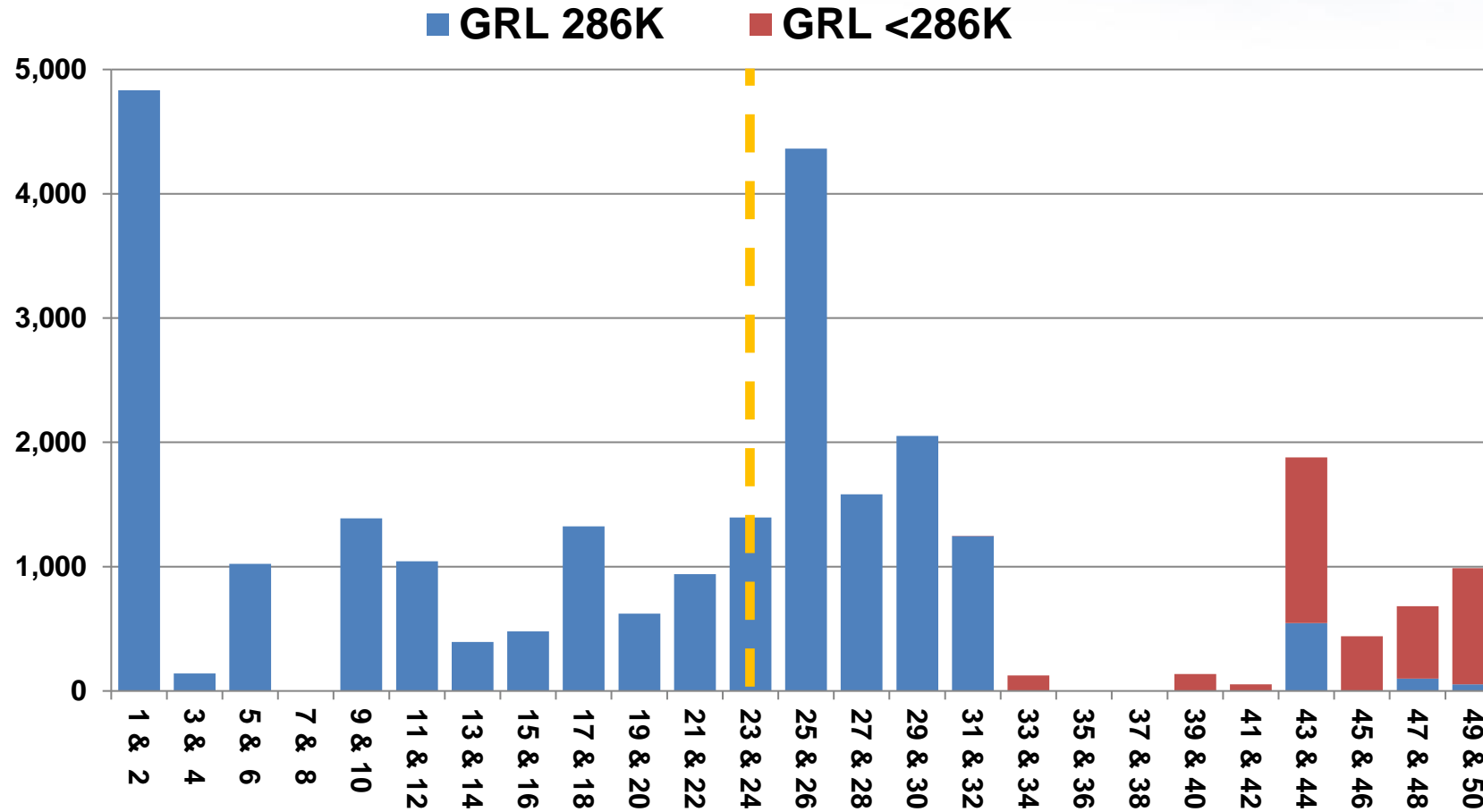


**Highlights:**

- 4 percent of fleet
- 72K cars
- E534, G519, G719

# Coil Gondola

## Age Distribution by GRL

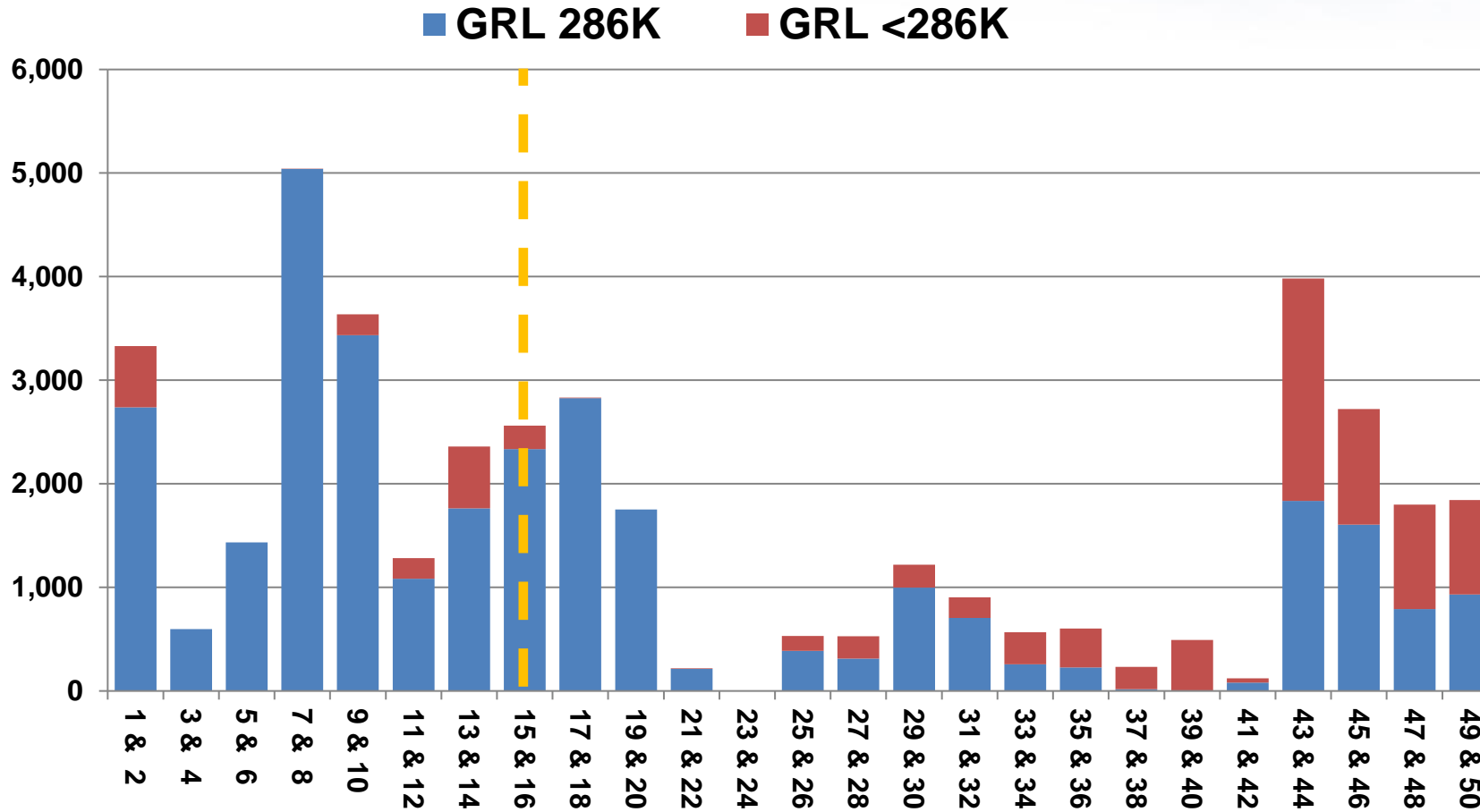


**Highlights:**

- 2 percent of fleet
- 27K cars
- E241, E242, E531, E441

# Aggregate

## Age Distribution by GRL



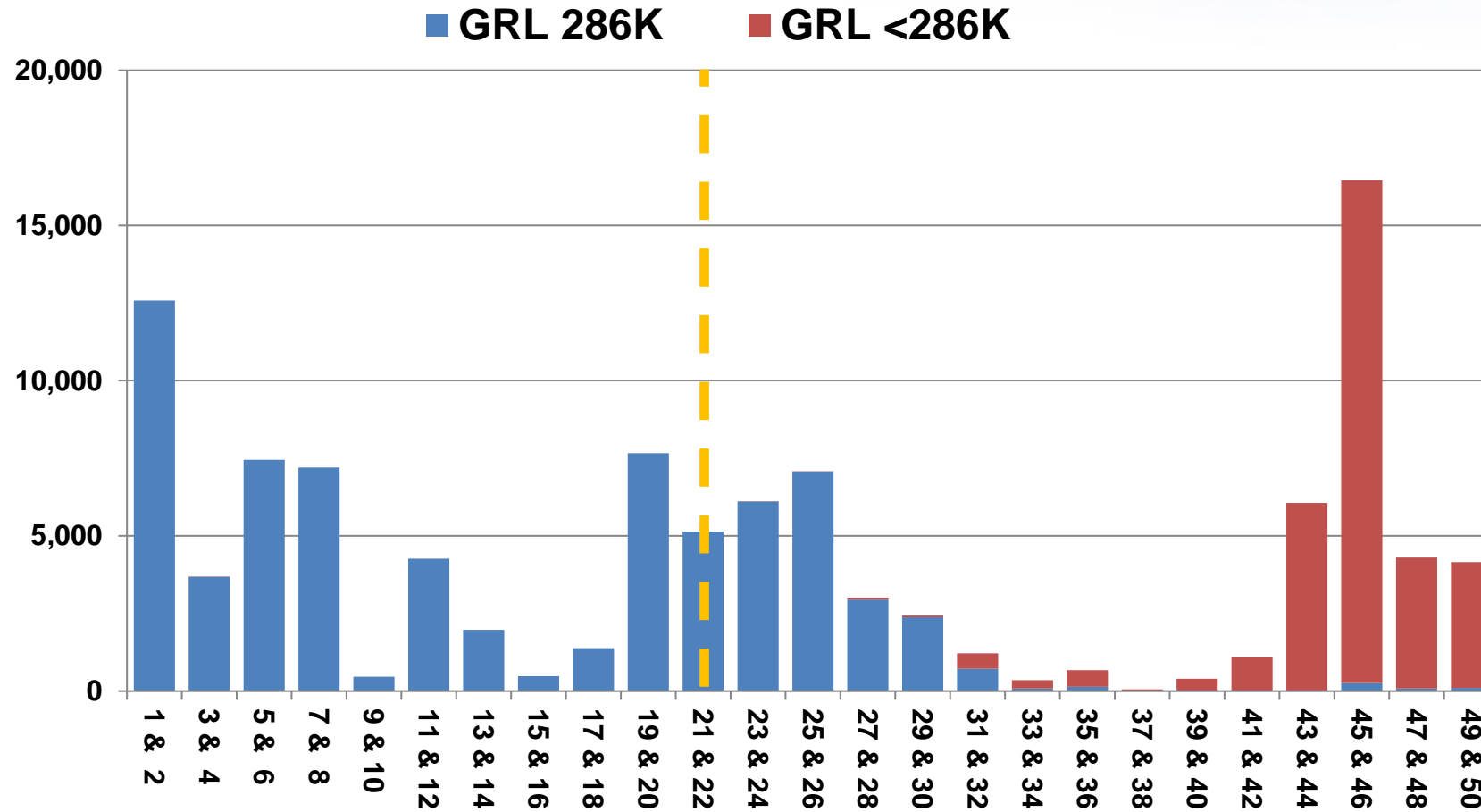
**Highlights:**

- 2 percent of fleet
- 41K cars
- H350, K344, G119, K384



# Box Car

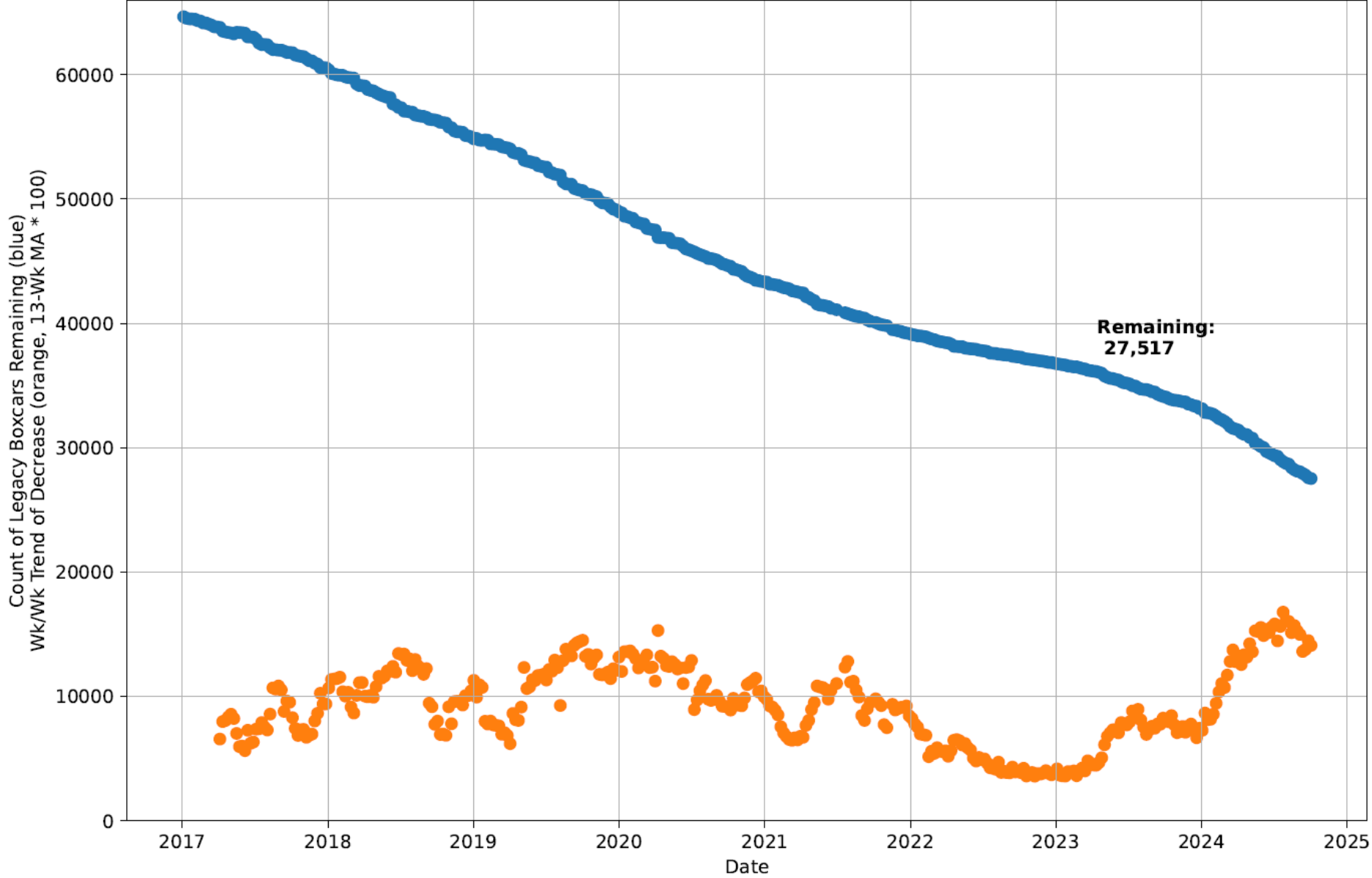
## Age Distribution by GRL



**Highlights:**

- 6 percent of fleet
- 106K cars
- A606, A406, A402, A405

Boxcars Destined to Age Out of Fleet by End of 2035 (Initially 64,654)

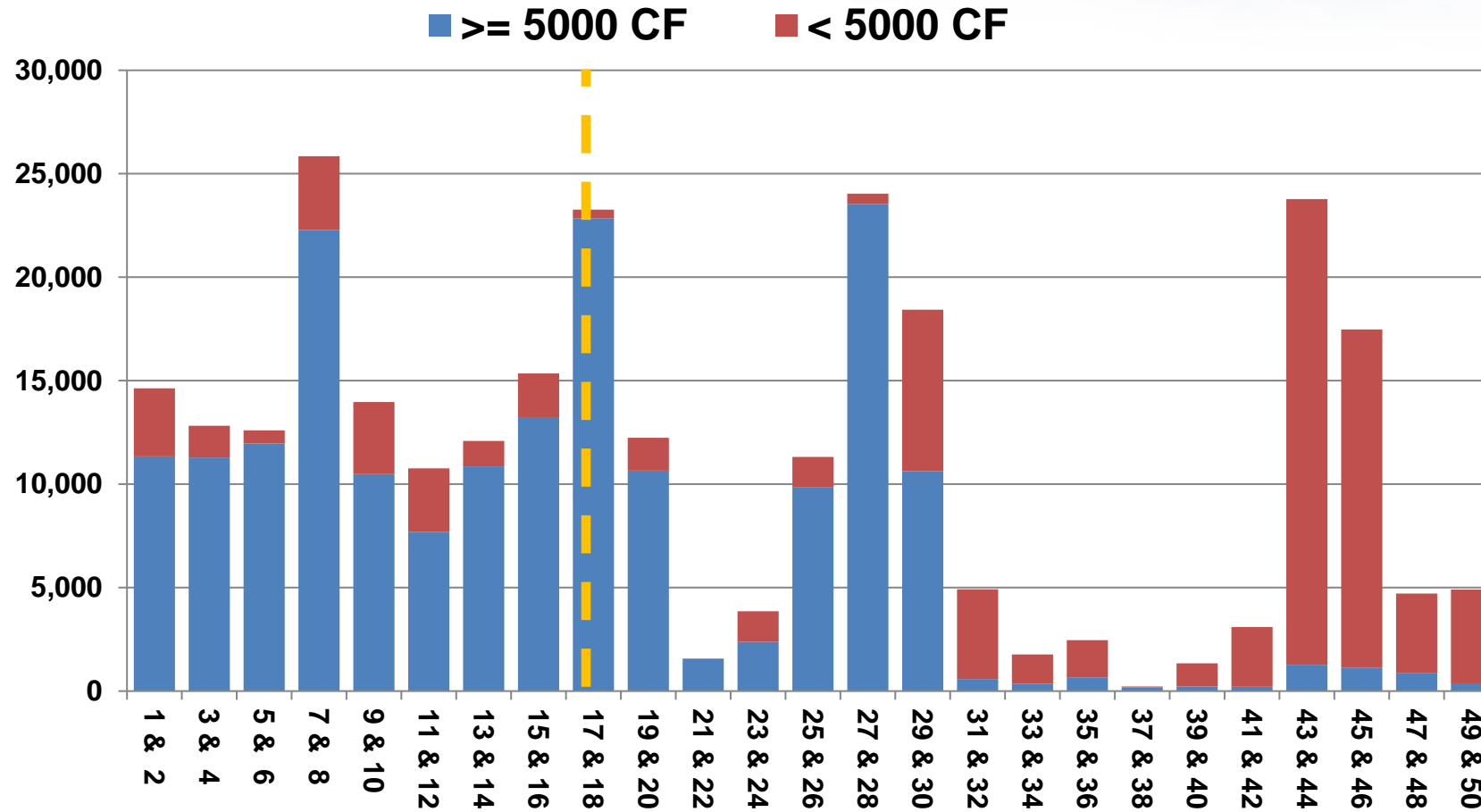


Blue Line:  
Count of Previous  
Generation Box Cars  
Still in North  
American Fleet

Orange Line:  
Relative Rate of  
Change

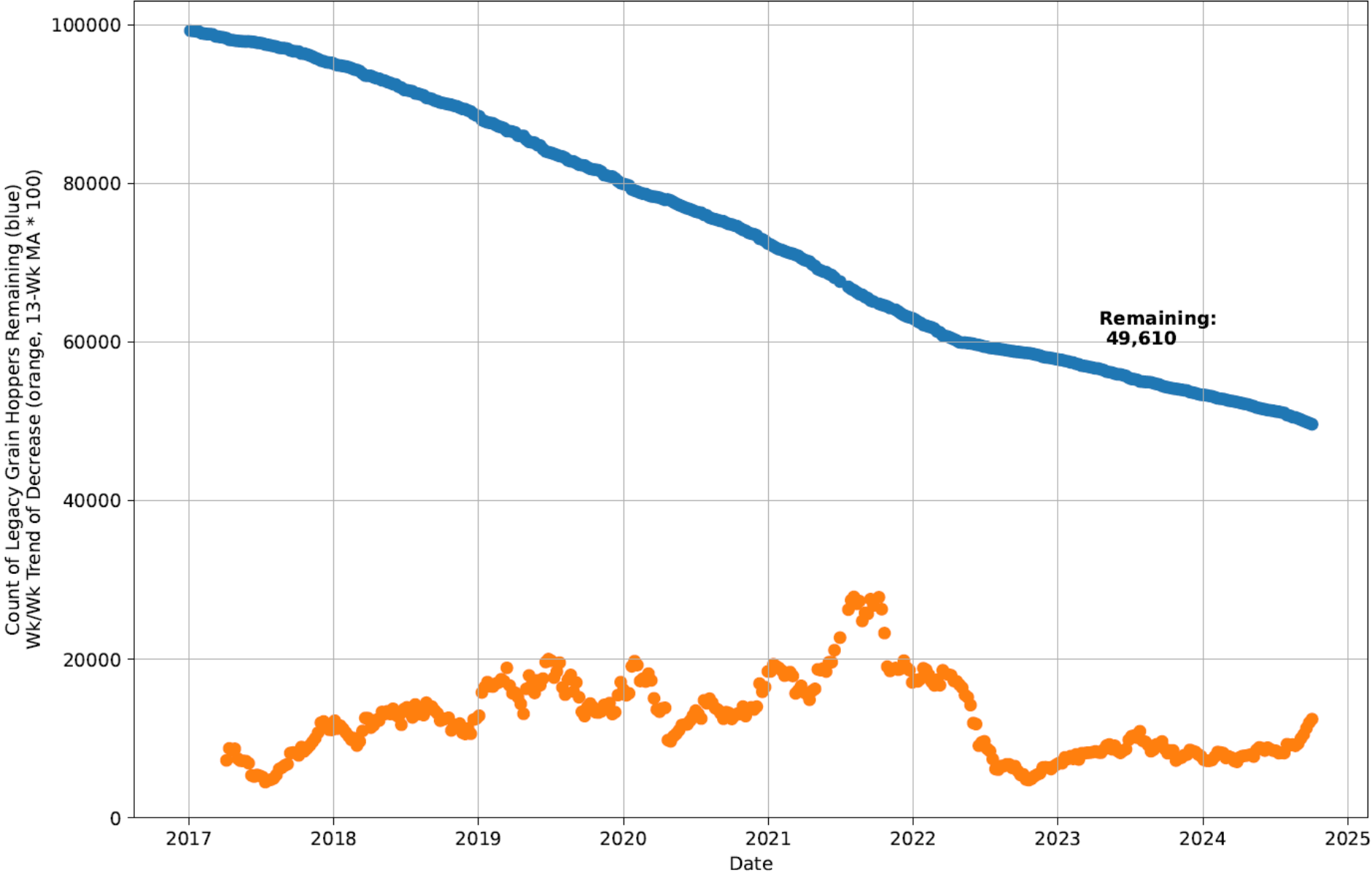
# Grain/Fertilizer

## Age Distribution by Capacity in Cubic Feet



**Highlights:**  
17 percent of fleet  
277K cars  
C114, C113,  
C314, C313

Grain Hoppers Destined to Age Out of Fleet by End of 2035 (Initially 99,234)

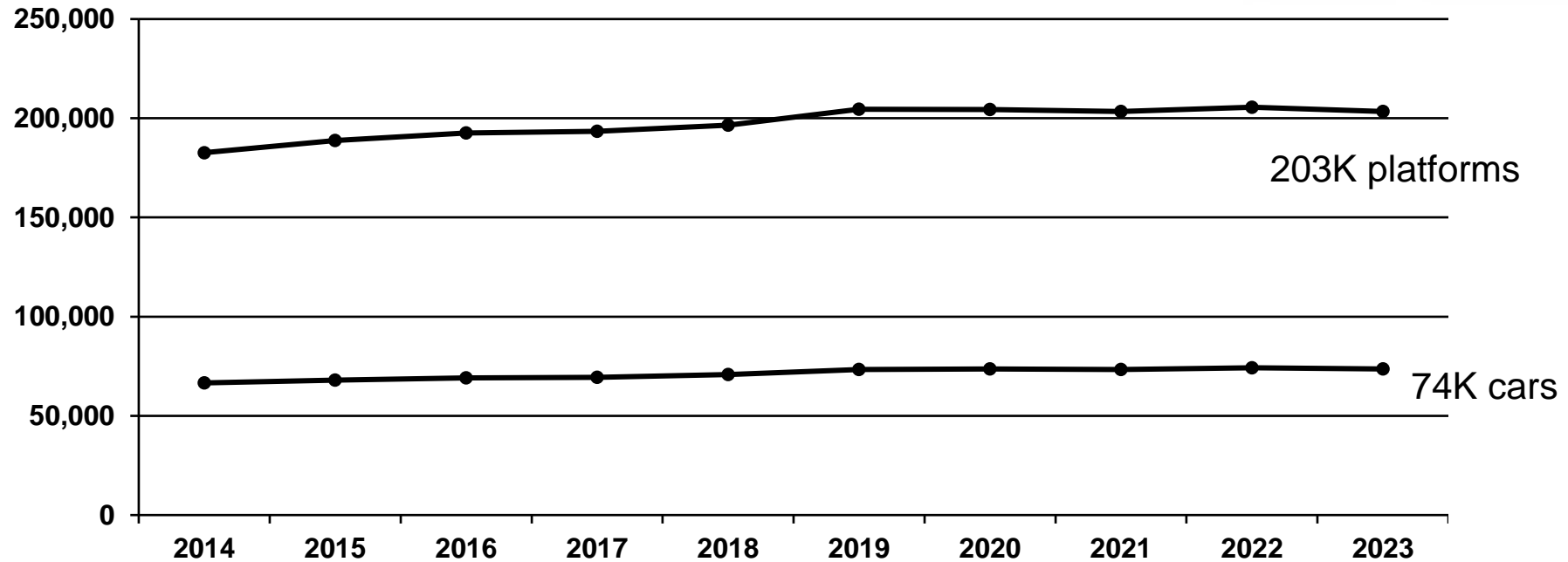


Blue Line:  
Count of Previous Generation Grain Covered Hoppers Still in North American Fleet

Orange Line:  
Relative Rate of Change

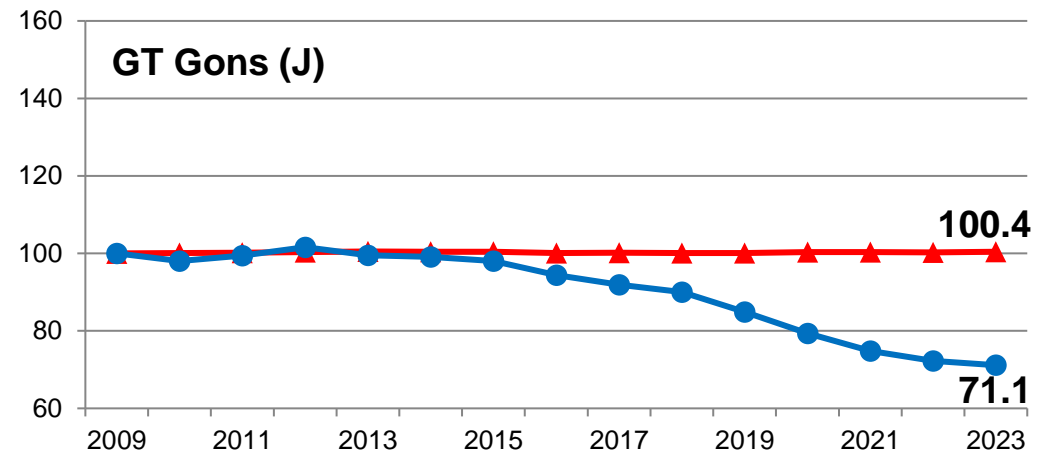
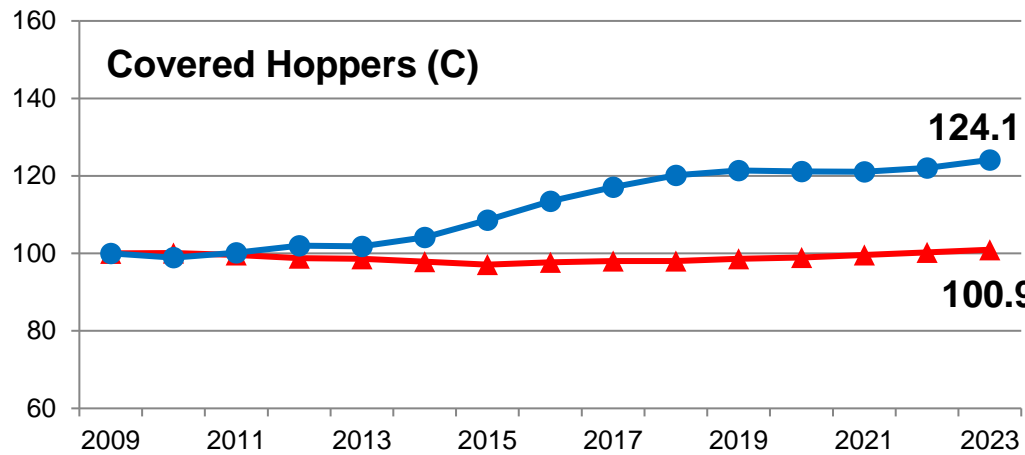
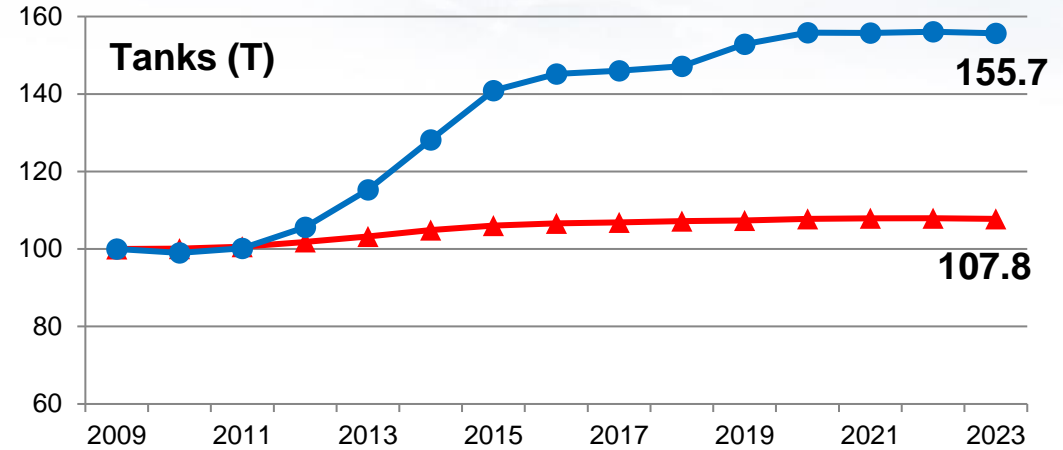
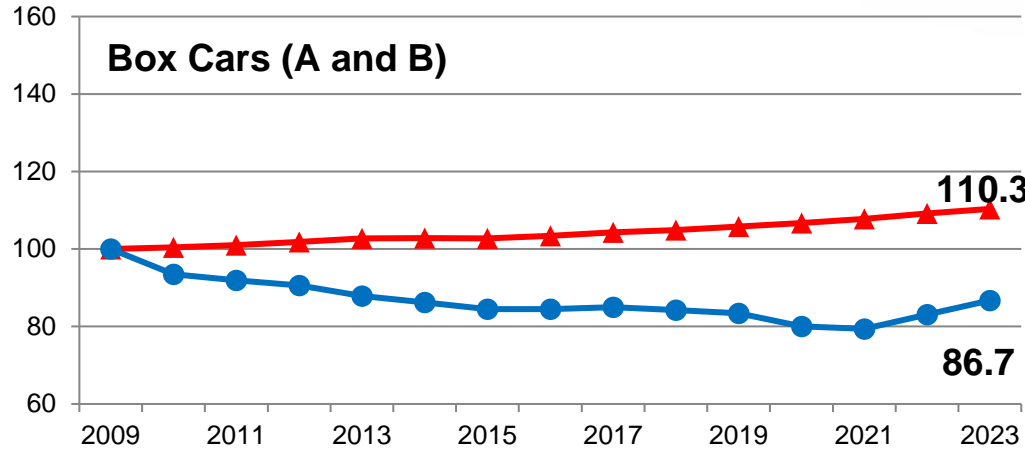
# Intermodal Flat Car and Platform

## Count of Flat Cars and Platforms (Revenue-Earning Fleet)



**Highlights:**  
ETC1 = P, Q, S  
4 percent of fleet

# Fleet Capacity and Average Car Size



# *Railinc Keeps You Moving.*

---

**David Humphrey, Ph.D.**

919-651-5267

david.humphrey@railinc.com

**Railinc Customer Success Center**

1-877-RAILINC

csc@railinc.com

