



# ***MARTS Technical Conference Wheelset Removals***

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***Transportation Technology Center, Inc***



# Wheel Shelling Progression



Month 1  
Good Wheel

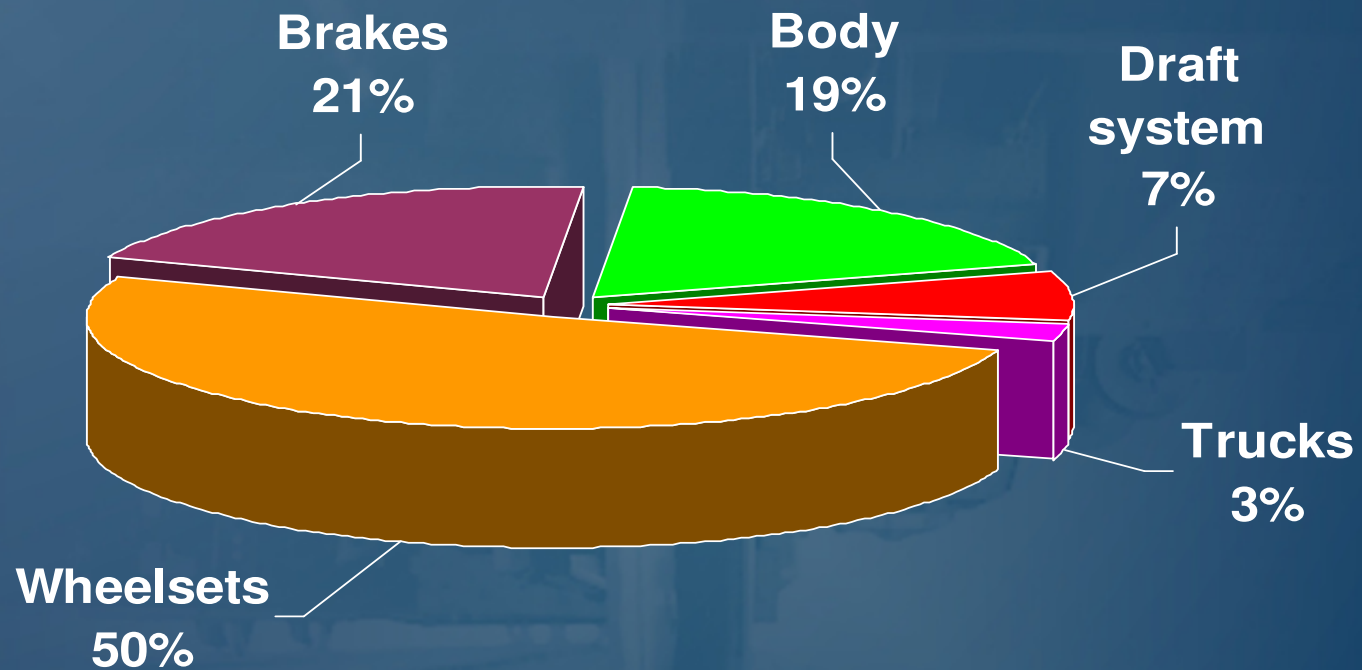
Month 9  
Fatigue Cracks  
+29,000 miles

Month 13  
Shells  
+55,000 miles

Month 16  
Fully Shelled  
+76,000 miles



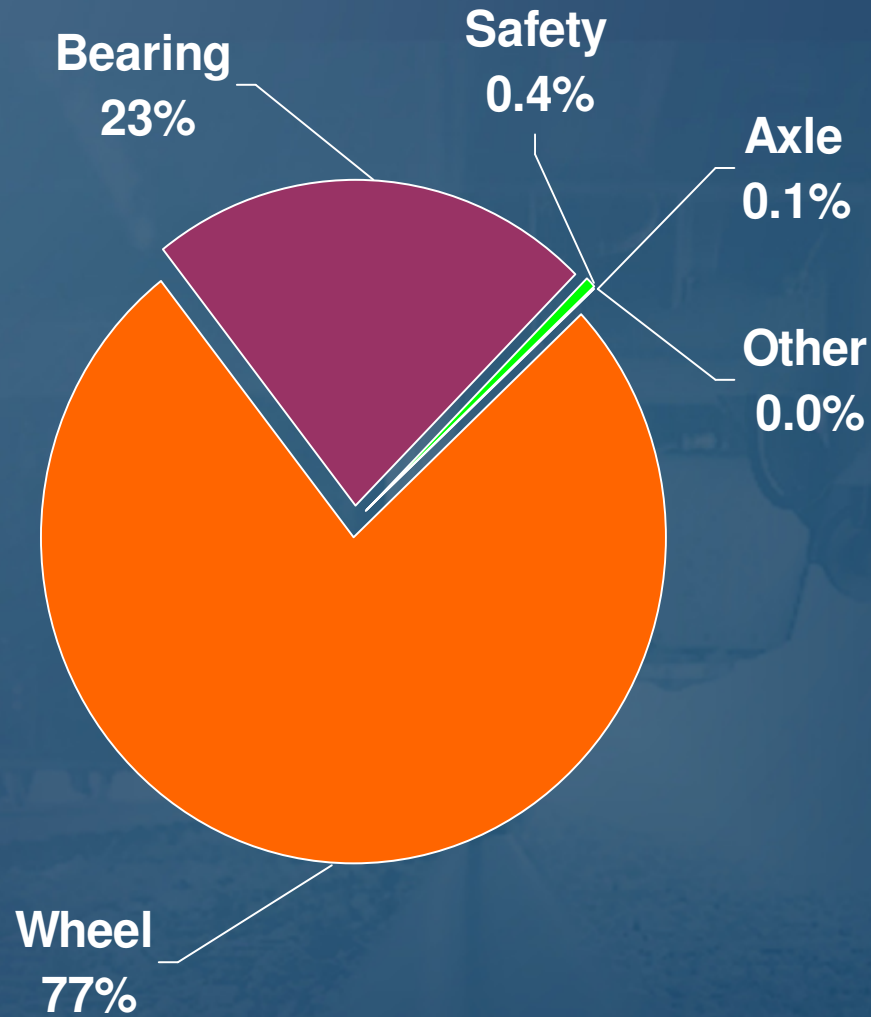
# Equipment Freight Car Repair & Maintenance



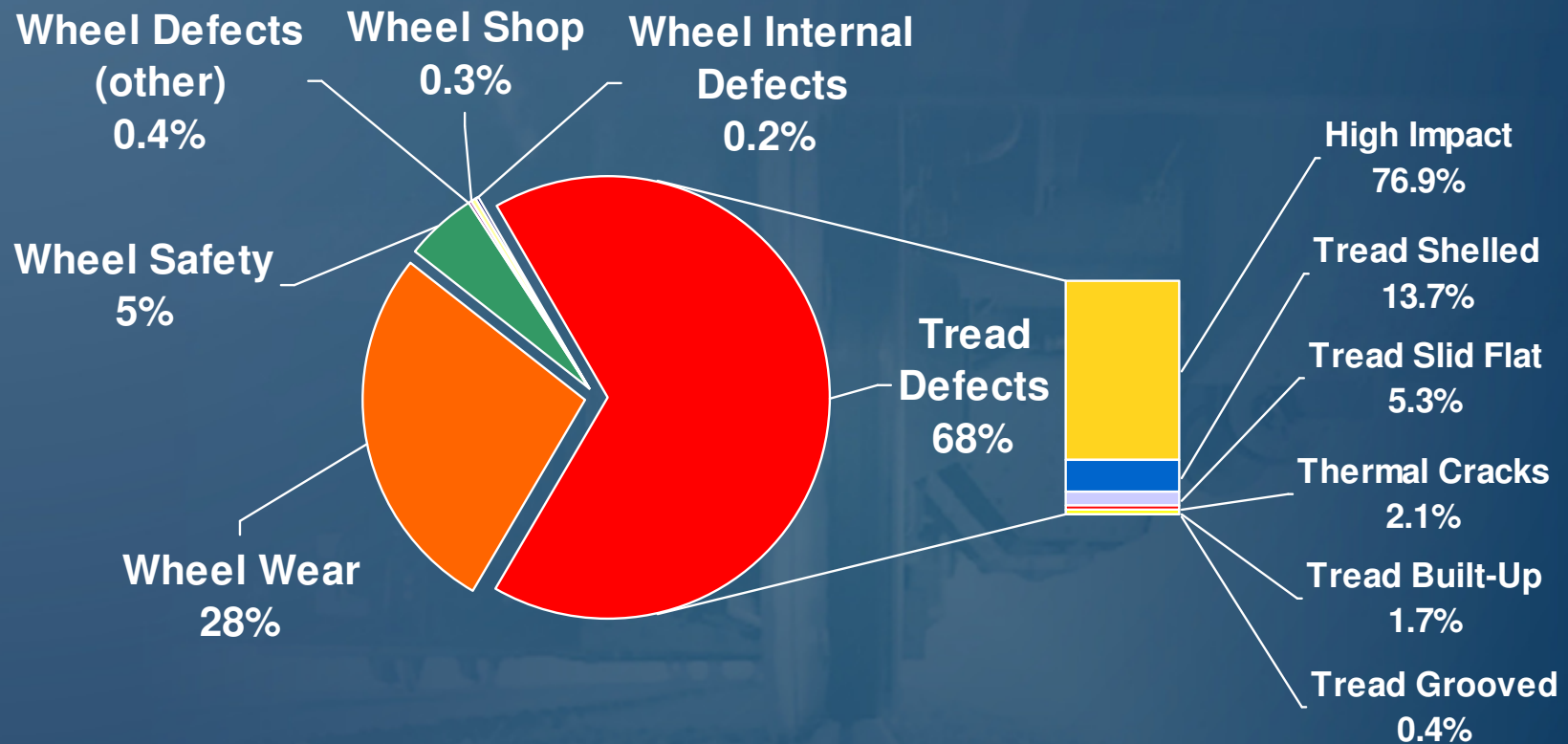
Source: AAR Car Repair Billing reported wheelset removals (2008). CRB statistics represent approximately fifty percent of industry removals.

Note: Percentages represent major repair and maintenance cost for freight car equipment.

# Paired Wheelset Removals Removals by AAR Interchange Rule



# Equipment Paired Wheelset Removals

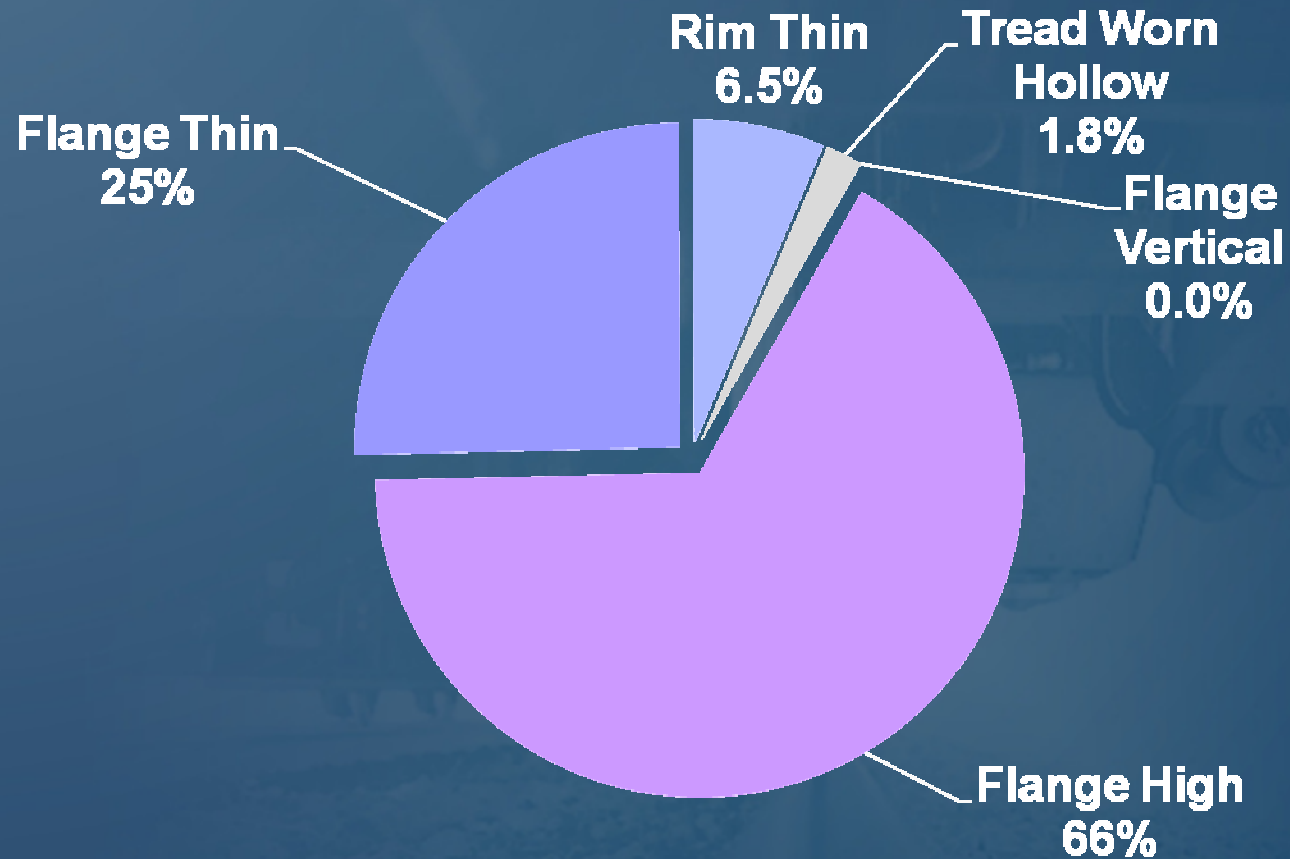


## Specific sub-groups for tread defect removals

Source: Car Repair Billing reported wheelset removals (2006-2008). CRB statistics represent approximately fifty percent of industry removals.

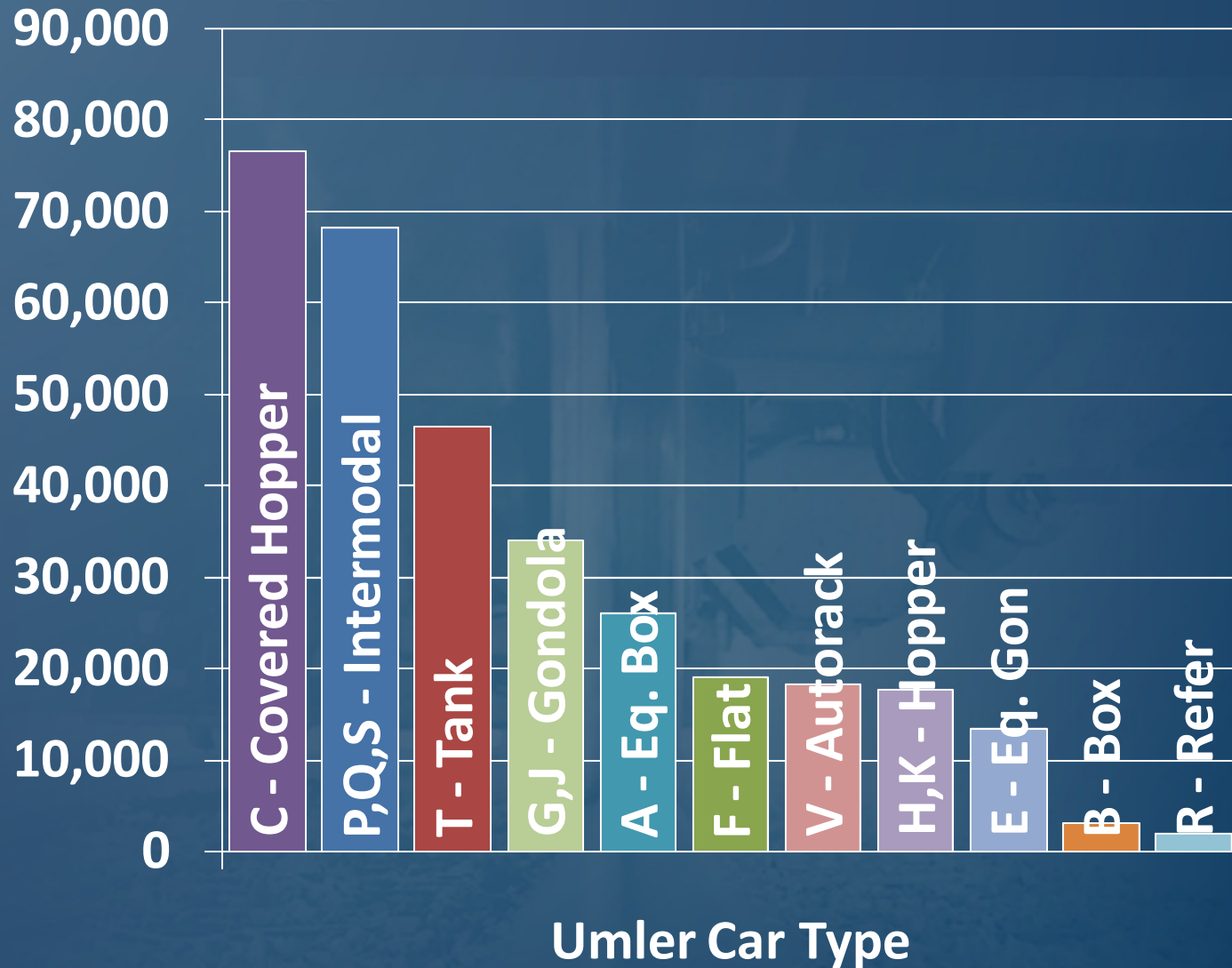
Note: Percentages represent the cumulative number of wheelset removals, by sub-group and specific sub-group.

# Paired Wheelset Removals Wear



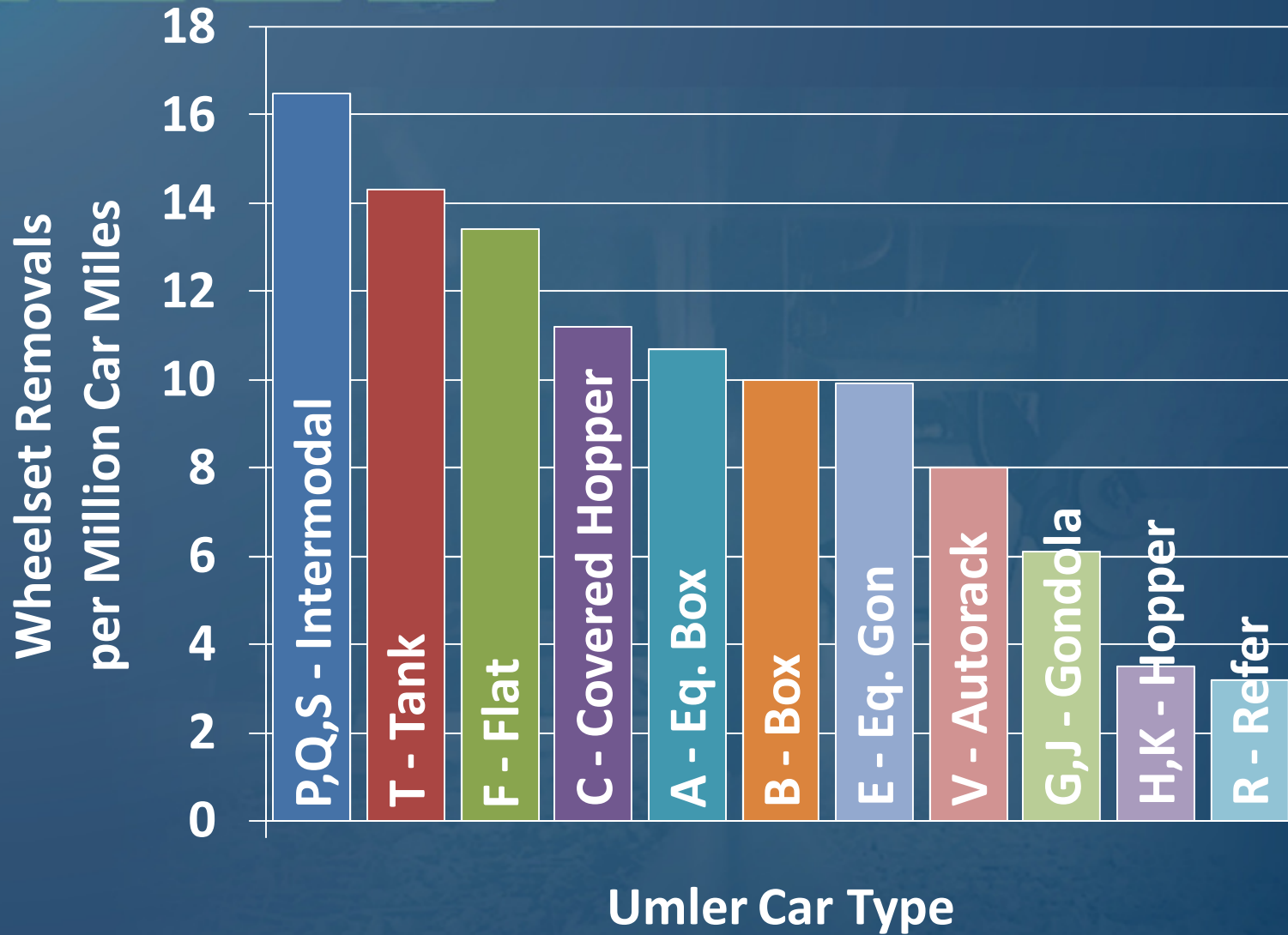
# Paired Wheelset Removals by Car Type

2008 Wheelset Removals





## Paired Wheelset Removals by Car Type







## ***Acknowledgements***

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- ◆ Chris Pinney, TTCI, for his diligent work assembling this data