



# What is Intermodal Transportation?

*“The concept of transporting passengers and freight on two or more different modes in such a way that all parts of the transportation process, including the exchange of information, are efficiently connected and coordinated.”*

Gerhardt Muller, Eno Transportation Foundation

- 1880 – Farm Wagons on Flat Cars
- 1950's – Interstate Highway Act
  - Trucks became competition
  - TOFC
  - Container ships developed
  - 1957 – Collapsible Trailer Hitch Invented
- 1960's & 1970's – Railroads develop better technology to become more competitive
- “Land Bridge”

- Double Stack Containers



- International Containers



- Domestic Containers





- Transloading

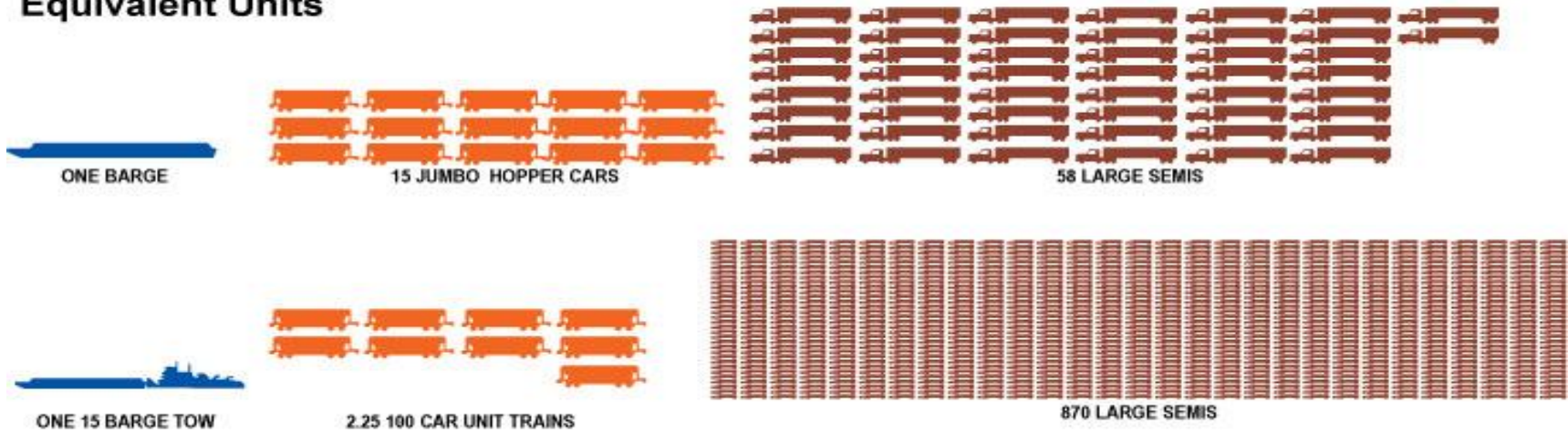


# Compare...

## Cargo Capacity



## Equivalent Units



## Equivalent Lengths



Source from Iowa Department of Transportation  
PAGE 12-1104



Hanson Professional Services Inc.

## FUEL EFFICIENCY

1 gallon of fuel can move  
1 ton of cargo...



**59** miles by truck



**202** miles by train



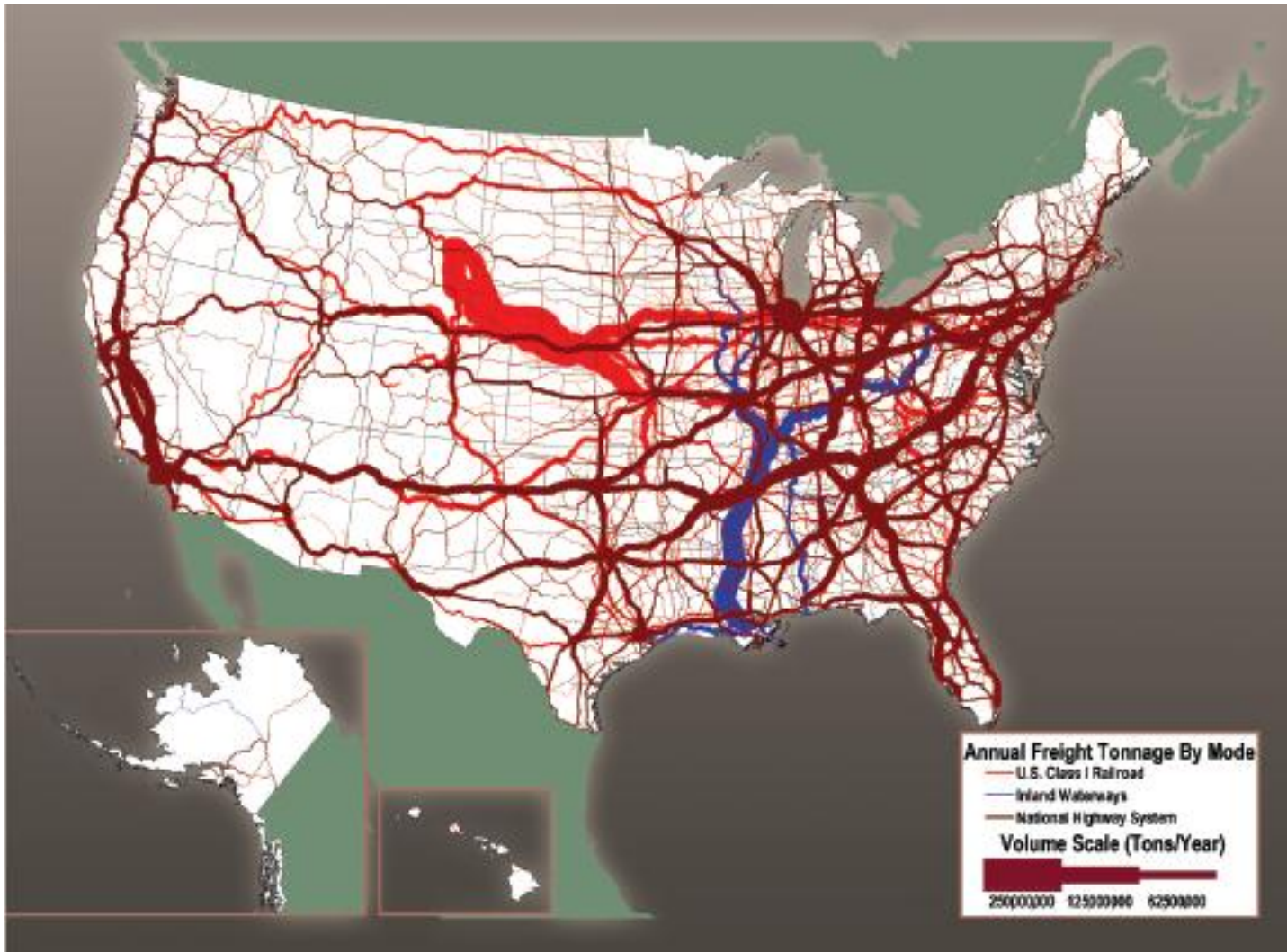
**514** miles  
by barge



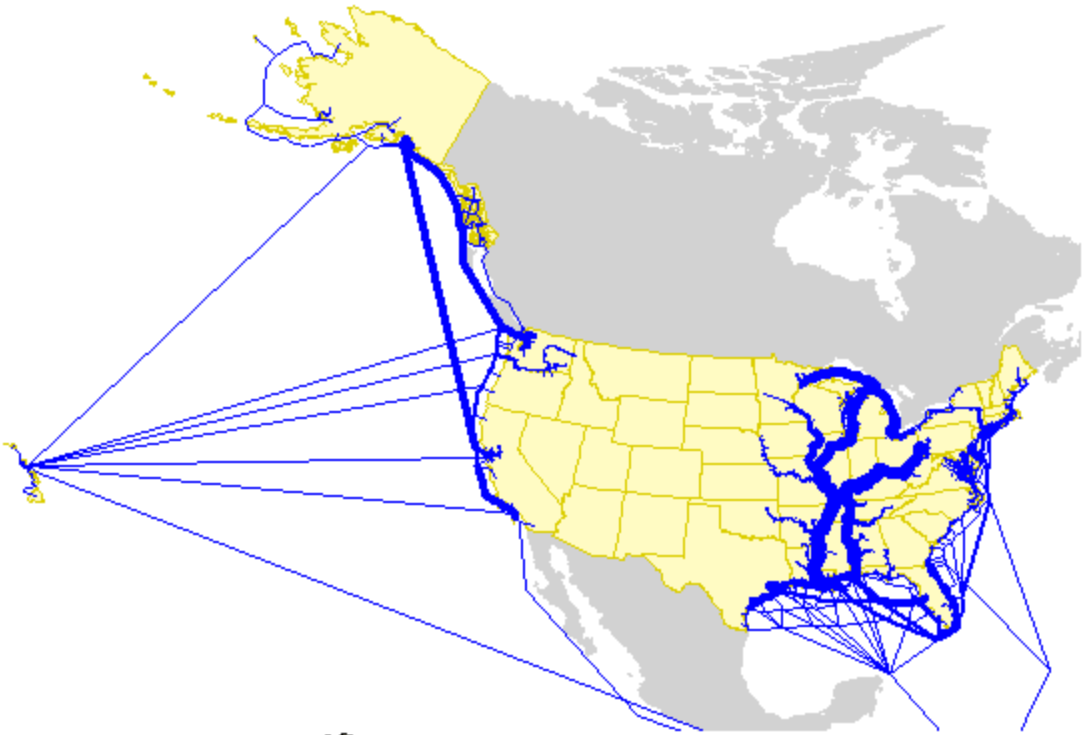
# Major Freight Corridors by Mode

- Rail - Powder River Basin, Los Angeles to Chicago
- Waterways - Mississippi River, Ohio River
- Truck – I-40, I-75, I-81, I-65, I-71, I-5

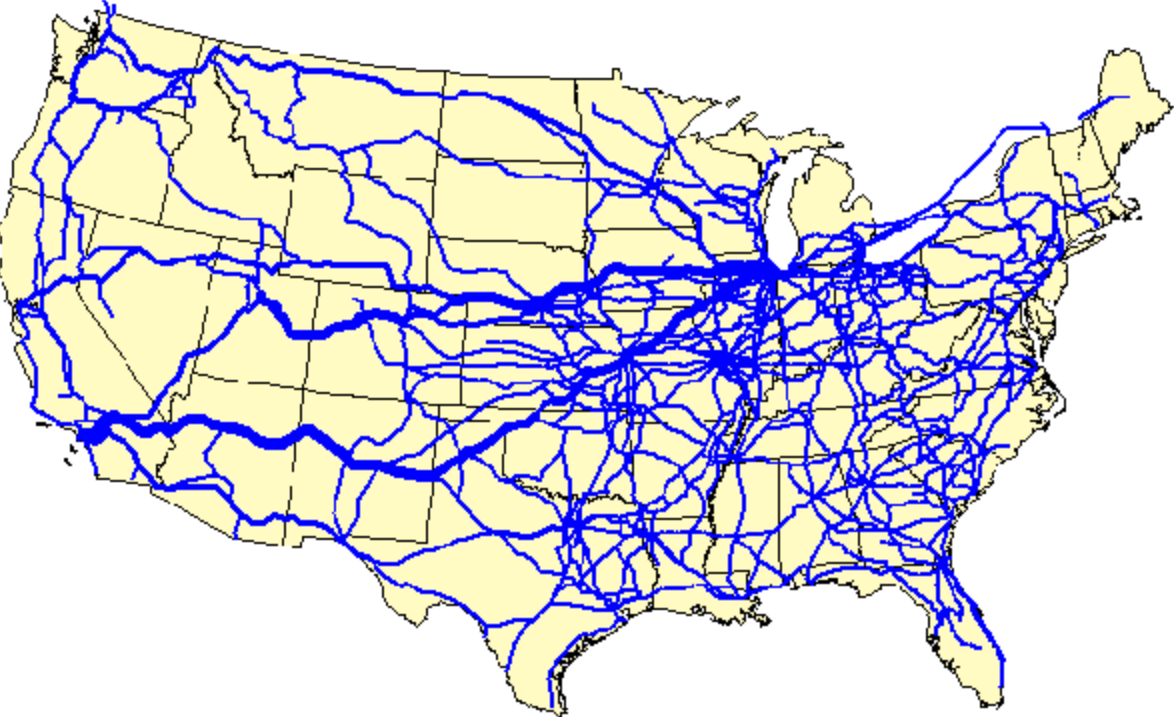
# Major Freight Corridors



US Waterways Freight Density



US Rail Intermodal Density



# Intermodal in Kentucky

- Norfolk Southern Intermodal Facilities – Louisville and Georgetown
- Coal Transloading Facilities – Eastern Kentucky
- Riverports – Owensboro, Ashland, Louisville, Paducah, Maysville, etc...
- Freight Airports – Lexington, Cincinnati, Louisville, Owensboro, Paducah

# CH. 16 – Special Freight and Package Services





- Large and Heavy Loads
- High-Wide Load Coordination
- Special Equipment
- LCL Traffic
- Forwarders
- High Value / Time Sensitive